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ABSTRACT

This volume presents five languages of India-Nepal from four different language families: Halbi and Kupia (India) of the Indo-Aryan family, Parengi-Gorum (India) of the Munda family, Dhangar-Kudux (Nepal) of the Dravidian family, and Tamang (Nepal) of the Tibeto-Burman family. Papers are entitled "Semanitc Relations between Whole Propositions in English," "Sentence Patterns in Halbi," "Sentence Patterns in Kupia," "Sentence Patterns in Tamang," "Clause Patterns in Parengi-Gorum," and "Paired Semantic Components, Paired Sentence Reversals and the Analysis of Dhangar-Kudux Discourse." For other volumes in the series, see FL 004 900, FL 004 901, and FL 004 902. (DD)

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Patterns In Clause, Sentence, and Discourse

in selected languages of India and Nepal

I: Sentence and Discourse

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Patterns In Clause, Sentence, and Discourse

in selected languages of India and Nepal

Part I, Sentence and Discourse

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Table of Contents

Acknowledgments v

Introduction 1

Semantic Relations Between Whole Propositions in English
Ronald L. Trail. 5

Sentence Patterns in Halbi
Fran Woods 35

Sentence Patterns in Kupia
R. B. and J. E. Christmas. 125

Sentence Patterns in Tamang
Fay Everitt. 197

Clause Patterns in Parengi Gorum
F. Richard Aze 235

Paired Semantic Components, Paired Sentence Reversals and the
Analysis of Dhangar-Kudux Discourse
Kent H. Gordon and Kenneth L. Pike 313

Introduction

We present in this volume five languages of India-Nepal from four different language families--Halbi, Kupia, and Parengi-Gorum of India, and Dhangar-Kudux and Tamang of Nepal. Halbi and Kupia are Indo-Aryan languages spoken in Madhya Pradesh and Andhra Pradesh respectively. Parengi-Gorum is a Munda language spoken in Andhra Pradesh and Orissa. Dhangar-Kudux is a Dravidian language spoken in southern Nepal. It is a dialect of the Kudux of India. Finally, Tamang is a Tibeto-Burman language of Nepal.

We focus in this volume on sentence--four of the papers are on sentence description and the paper on Dhangar-Kudux discourse has implications for sentence analysis. The paper, "Clause Patterns in Parengi-Gorum," has been included here in order to balance the sizes of Parts I and II of the report. For the theory underlying this paper, see the article, "Toward the Systematization of Display Grammar," by Austin Hale in Part II.

All of the sentence papers build on the ground work laid by Robert E. Longacre (1967, 1968, 1970, 1972, and the two papers co-authored with Ballard and Conrad 1971). There are, however, certain modifications which we would like to suggest. One is regarding the place of sentence in the grammatical hierarchy. The other is concerning the ranking of relationships within a sentence. Both are discussed in the paper, "Sentence Relations Between Whole Propositions in English."

We feel that the proper context in which to study relations between propositions is discourse. We found in our study of sentence that some sentence links and relators tended to fluctuate in meaning from informant session to informant session especially when sentences were previously elicited out of context. Within a discourse, however, a particular relation is much less likely to be ambiguous and the language assistant is put on a much firmer footing when having to answer questions about that relation. No doubt quick elicitation of several sentence types is possible depending on the ability of the language assistant. Unless, however, these sentences are checked in context, the linguist cannot be sure of either the meaning he has assigned or of the possibility of a finer distinction in meaning.

Gordon and Pike have reversed this order in their paper on Dhangar-Kudux by studying discourse structure via a heuristic known as sentence reversal. The beauty of this approach is that it studies linguistic units in context and hence the language assistant is perfectly at home in giving judgments about whether certain sentences or groups of sentences can be reversed and if so what adjustments are required to make the change. The method is based on the assumption that the language assistant will only reverse units which are in some way complete in themselves. By starting with sentence size units, the linguist not only discovers much of the structure of paragraph and discourse begins to unfold as well.

Semantic Relations
Between Whole Propositions
In English

Ronald L. Trail

Purpose and Scope. We would like to discuss briefly in this paper: 1) the place of sentence (as opposed to clause) in the grammatical hierarchy; 2) the need for sentence as an area of study in its own right; 3) sentence viewed as the domain of relationships between whole propositions; and 4) the relationship of surface to deep structure in sentence.

A. *The Place of Sentence in the Grammatical Hierarchy.*

In current Tagmemic thought, Sentence and Clause are viewed as separate levels in the grammatical hierarchy. Clause is viewed as the domain of what in logic is known as predicate calculus, whereas Sentence is viewed as the parallel to formal logic's statement calculus. Clause is a verb-centered construction surrounded by certain nuclear (obligatory) constituents which strictly subcategorize it. Sentence, on the other hand, is a level characterized by clause combination—that is, clauses joined by such connectors as *and*, *but*, *or*, *if...then*, and the like.

We recognize that the relationships which separate these two putative levels are genuinely different. What we wish to query is, Do these differences qualify to separate clause and sentence as two separate grammatical levels, or should they be rather viewed as two components of a single level? We wish to defend the latter choice particularly from analogy to phrase level.

We would like to point out at the outset that although some of the relationships seen on sentence level are peculiar to that level (as opposed to levels below it)—particularly cause-effect relationships—others have already been encountered on phrase level. These are: coordination, alternation, antithesis, generic-specific, and perhaps others. They are illustrated as follows:

Coordination:	men and women
Alternation:	men or women
Antithesis:	men but not women

Generic-Specific: It was black, pitch black outside.

The interesting point to observe here is that although these relationships occur between phrases, there has been no great pressure to posit a separate level of phrase combination as such. Yet when such relationships are seen between clauses, we are quick to posit a separate level which we call sentence, and to blithely admit that sentence is a level of clause combination. It is this similarity between clause and phrase, but yet the dissimilarity with which they are treated that we wish to highlight. Would it not be more logical to treat the two alike and to say that we have phrase as a separate level within which there are a finite set of basic, simple, or primary phrase types, and then that there are ways of combining these types into larger [illegible]bined units; and similarly that we have clause (or sentence—what [illegible]e call it) as a single level within which there are basic types [illegible]acterized as verb-centered constructions, and then that there are ways of combining these into larger units? So within each level (phrase and clause) we would have two components--a basic-type component and a combined-type component. Admittedly clause combination is a bit more extensive than phrase combination, but the parallel is still there. If such a course were taken it would be best to call the level 'sentence' since that term has more universal coinage. We could then call what is now the domain of clause, 'simple sentence,' and what is now the domain of sentence, 'complex or composite sentence.' This would allow us to focus on simple sentence as the domain of verb subcategorization and on complex sentence as the domain of sentence embellishment and combination. By sentence embellishment we mean peripheral modifiers such as introducers, outer locatives and temporals (note that the latter two have fluctuated between clause and sentence in recent analyses), and other discourse related tagmemes.

Longacre (1968, Vol. I, p. xx) ably defends the uniting of phrase and a putative phrase cluster level, as a single level. He does this by showing that primary exponence of clause level tagmemes requires that they be filled by units from the next level down the hierarchy, that is, from this putative phrase cluster level; but that in actual fact simple phrases are far more common as exponents of clause tagmemes than are phrase clusters. He could have gone on to reason that simple phrases and phrase clusters have identical distribution and therefore need to be considered a single level.

Now if we reasoned similarly to this about clause (simple sentence) and sentence (complex sentence) we should be able to say that primary exponence would require that paragraph tagmemes be filled more commonly by sentences (complex sentence) than by clauses (simple sentences). We do not think that this is true. Both simple sentences and complex sentences have this in common that they make assertions—the former does it simply; the latter by attaching conditions and concessions or by combining two into one assertion. We would like to put forward the claim that simple sentences (simple assertions) fill paragraph level slots as typically as do complex sentences (complex assertions) and that therefore clause and sentence should be joined into one single grammatical level.

Note that running through the argument above is the premise that a level is constituted of units which have identical or similar distribution. Therefore because combined phrases have the same distribution as simple phrases, we posit a single phrase level. Similarly, because complex sentences and simple sentences have the same distribution (that is, in paragraph slots) we posit a single level of sentence. Figure 1 below is a chart of our suggested view of sentence and phrase in the grammatical hierarchy accompanied by the corresponding semantic terminology.

Level \ Number of Units		Single	Two or more
Sentence	Grammatical	Simple Sentence 'I ran.'	Complex Sentence 'I ran but she walked.'
	Semantic	Proposition	Paired Propositions
Phrase	Grammatical	Simple Phrase 'the red ball'	Complex Phrase 'the red ball and the white one'
	Semantic	Term	Paired Terms

Figure 1. Suggested Hierarchical View of Sentence and Phrase.

The above observations, however, have not been incorporated into the papers of this volume. They are all written from the point of view that clause and sentence are separate levels, and that sentence is the domain of clause combination.

B. Is the Study of Sentence Well Motivated?

In answer to the second question—Why do we need the sentence in English grammar?—we would like to present the following two exercises and from them draw support for the need for sentence in English discourse. It was suggested to me by Austin Hale that a good heuristic for determining the function of a grammatical unit is to try to function without it. We have therefore taken a paragraph from an article in the February 12, 1973 issue of Time entitled, "Deke's Comeback," and attempted to retell it using no sentential connectors such as: and, but, or, if, although, when, before, after, and the like. If our guess is correct, we should not be able to retell the story with the same ease and poignancy of style as the original. The original we present as is in the column on the left; our revised version on the right.

Original	Revised
"It was a day that Donald K. ('Deke') Slayton would never forget. On March 15, 1962, only two months before the taciturn astronaut was scheduled to become the second American to orbit the earth, NASA doctors abruptly grounded him. Reason: they had discovered an occasional irregularity in the rhythm of his heartbeat. The bitterly disappointed Slayton subsequently became chief of flight-crew operations at the Manned Spacecraft Center and played a key role in picking all future space crews, including the first men to land on the moon. But even as he sent other astronauts to the launch pad, he never stopped dreaming of making the trip into space himself."	It was a day that Donald K. ("Deke") Slayton would never forget. He was grounded abruptly on March 15, 1962 by NASA doctors. Only two months later the taciturn astronaut was scheduled to have become the second American to orbit the earth. Yes, they had grounded him. Reason: they had discovered an occasional irregularity in the rhythm of his heartbeat. The bitterly disappointed Slayton subsequently became chief of flight-crew operations at the Manned Spacecraft Center. He played a key role in picking all future space crews, including the first men to land on the moon. Meanwhile, he continued to dream of making the trip into space himself.

1) The first sentence can pass as it is, since the that-clause is modifying merely the term day of the sentence and not the sentence as a whole. We consider this a relationship between a whole proposition and a part proposition (as will be seen later) and not between two whole propositions. This relationship is therefore beyond our purview.

2) The second sentence—beginning, "On March 15, 1962..."—immediately gives us trouble since it is composed of two propositions in reverse temporal sequence. It is reverse because the "grounding" occurs before his scheduled orbit, but is mentioned after the orbit. A confusing factor is that the time that he was actually scheduled, that is, selected, and the time he was to actually orbit are not the same. We use the latter as the intended time reference since it makes sense with the word "before" of the original. Otherwise, the "grounding" took place after the scheduling or selecting and this does not match with the intended sense of the original. We attempt to adjust the relationship without the relator "before" as follows:

a) Previous to this the taciturn astronaut had been scheduled in just two months to become the second American to orbit the earth. Now, on March 15, 1962, NASA doctors had abruptly grounded him.

This attempt keeps the two events in their original chronological order in past time. The sequence is signaled by the words, "previous to this" and "now." One evident problem with this is that it makes a very poor connection with the topic sentence. This is because the topic sentence makes an indefinite reference to a certain "day" and our sentence refers to it as though it were a definite reference. The day does not become definite as March 15, 1962, until our second sentence. It does, however, make an easy transition to the following sentence since the original order has been preserved.

b) He was grounded abruptly on March 15, 1962 by NASA doctors. Only two months later the taciturn astronaut was scheduled to have become the second American to orbit the earth.

This attempt puts the two events in their correct chronological order which it accomplishes by the word "later" plus the verb phrase, "was scheduled to have become." Although this makes a fairly good connection with the topic sentence, the second sentence is a bit awkward. The second sentence also does not make a good transition to the beginning word (reason) of the third, and therefore requires a short summary sentence to make up for this, namely, "Yes, they had grounded him." Another criticism which will recur is that the single proposition sentences lack the style and flavor of the original and tend to be matter-of-fact and prosaic. When the original and our two attempted revisions of sentences two were read to several others, they unanimously favored the original.

3) The third sentence is all right as it is, except notice that the proposition needs to be labeled as reason. Otherwise a more wooden, "This was because..." would have to be resorted to. If we were to rule out this use of the word "reason" on the grounds that it is a sentential connector, we might not be able to adjust the relationship satisfactorily. In fact, cause-effect relationships are very difficult to express without using relators such as: because, if, so, although, and therefore.

4) Sentence 4 is an Additive or Conjoined sentence which is easily divided into two by deleting the conjunction "and" and repeating the Subject by means of a pronoun in the second proposition. This is a perfectly acceptable adjustment and at first glance, seemingly little is lost in the process. However, note that without the conjunction the style is choppy and lacks the free flow of the original. Another function of and is brought out by its absence—and permits a sequential and/or cause-effect relationship between its propositions. Slayton's becoming chief of flight-crew operations was certainly prior in time to, and the cause of his playing a key role in picking future space crews. Without the and however, the two propositions are simply events which may or may not be related. It is therefore interesting to see that although the primary function of and is to conjoin similar events, these secondary sequential and/or cause-effect functions are implied as well.

5) Sentence five is a Concessive or Antithetical sentence—"But

even as he sent other astronauts to the launch pad, he never stopped dreaming of making the trip into space himself." This but has at least three functions. Placed at the beginning of the sentence it signals a contrast with what has gone before--in this case the previous sentence. It also permits a summarizing of the event with which it contrasts, namely, "...even as he sent other astronauts to the launch pad..." Finally it functions as a contraexpectation signal indicating to the reader that something counter to the normal expectancy patterns should be anticipated. Now to capture these three functions without the signal is difficult. The following are two attempts:

a) Meanwhile, he continued to dream of making the trip into space himself.

This lack the summary function and puts the burden of contrast on the emphatic he, himself as against those he sent. It completely misses the counter-expectancy component signaled by but.

b) Like this he sent many other astronauts to the launch pad. However, he never stopped dreaming of making the trip into space himself.

This attempt captures the summary function by virtue of the anaphoric phrase, like this. It also retains the contrast and contraexpectancy components by means of the synonomous however. This may have been cheating a bit since it may be only punctuation that separates our sentences now. At any rate one can see that it would be very difficult to express the concept of contraexpectancy without using a connecting signal of some kind.

So in just briefly analyzing a paragraph of English prose we can begin to see that the study of sentence is well motivated. We have been very hard put to function without paired propositional sentences. In two places we had to indicate the relationship between two propositions either by actually naming it in the case of "reason," or by using a synonym in the case of "however" for "but." Our paragraph lost style and free flow and became prosaic, stilted, and choppy. In some places we lost components of meaning, as for example when we had to function without "and" and "but." And we noted that the function of and is not simply to conjoin, but also to signal sequence and/or a cause-effect relationship.

Another test was done on two different discourse types to see what sentence types formed their basic structure. Both discourses were articles from the June 1972 issue of Reader's Digest. One was a Narrative discourse entitled, "Little Boy Lost in the Rockies," by Edward Fales, and the other an Expository-Procedural discourse entitled, "Straight Talk About Good Posture," by Warren Young. Assuming that there is a correlation between types of relationships between propositions and types of relationships between paragraphs in discourse, we went through the articles noting these relationships. The first time through the articles was to identify the relationships between the last sentence of a paragraph and the first sentence of the next paragraph. We felt that this would give us a rough indication of the relationships between paragraphs. The second time through the articles we merely counted the different types of paired-propositional sentences in each discourse (assuming that a certain discourse type would per force have more relationships of one kind than another). We present the results of this study in Figures 2–4 by simply listing the types of relationships and beneath them the number of times that particular relationship occurred in the discourse. After we have shown the results of the two kinds of relationships mentioned above, we combine them in a third chart (Figure 4).

Relationship / Discourse Type	Coord	Temp	Gen-Sp	C-E	Manner	Anti	Loc	Att
Narrative	3	20	1	0	2	2	1	0
Expository-Procedural	7	1	11	6	0	1	0	1

Figure 2. Relationships Between Paragraph Final Sentences and Paragraph Initial Sentences.

Relationship / Discourse Type	Coord	Temp	Gen-Sp	C-E	Manner	Anti	Alt
Narrative	11	14	1	4	11	3	1
Expository-Procedural	15	3	2	13	8	0	1

Figure 3. Relationships Between Paired Whole Propositions.

It is interesting to note the heavy reliance in Narrative on temporal relationships. This fact brings us to see that temporal relationships are extremely important in Narrative discourse and may in fact form its basic structure or backbone. The comparatively heavy emphasis on Manner relationships is also to be expected in this type of discourse in order to facilitate description. In Expository-Procedural discourse on the other hand, temporal relationships are little used whereas there is heavy emphasis on Coordinate, Cause-Effect, and Generic-Specific. We would conclude that these tend to form the basic structure of Expository-Procedural discourse.

Relationship Discourse Type	Coord	Temp	Gen-Sp	C-E	Manner	Anti	Loc	Alt	Att
Narrative	14	34	2	4	13	4	1	1	0
Expository-Procedural	22	4	13	19	8	1	0	1	1

Figure 4. Combined Relationships of Figures 2 and 3.

Notice, however, that one discourse genre does not completely rule out the use of a particular relationship which does not form part of its basic structure or backbone. But where a temporal relationship (sequential or concurrent) is used in Expository-Prcedural discourse, it contributes to it as supportive or collateral information. For example, in the discourse on Posture, the subject of good posture is introduced and expounded upon and no time line is developed because the material is subject oriented. However, when the point is made that posture could effect one's career, a success story is told in which a woman, having corrected her posture, goes on to a highly successful career. Within the story then a time line is developed, but the story merely plays a supportive role to the larger exposition.

Similarly, such relationships as cause-effect, antithetical, and alternative do not form the backbone of Narrative discourse, but are nevertheless used in Narrative as collateral material to give participant attitudes or accompanying description. For example, in the story, "Little Boy Lost in the Rockies," the time line proceeds from a bit before Keven Dye is lost until he is finally found and the story unfolds around the time line. As descriptive information is brought in, it comes via relationships other than sequential. Note in the following quote both the Antithetical and Alternative constructions: "They'd called out, they told Sheriff Estes, but he always ran on. Sometimes on craggy ridges he'd appear for an instant against the sky. He'd snatch food left for birds. At night, he'd break into cabins, steal peanut butter or raid dust-bins." (Underlining ours).

The time line, on the other hand, is carried on by such temporal phrases as, "An hour earlier, At breakfast, On Wednesday, The next day," and by such temporal clauses as, "When Phillip's enquiries and a search of the tree house failed to locate Kevin," and "...when he glanced towards the water again..."

The expository part of the Expository-Procedural discourse is developed by such Generic-Specific relationships as: "Posture is so basic to the human condition that we all rely upon it to make instant judgments of others. (Specifically) A slumping figure betrays advancing age, and nothing signals to us that someone is a 'loser' more surely than a defeated slouch;" and "The mechanics of balancing our bodies against the ever tugging pull of gravity--which is what posture is all about--are more complicated than you may imagine. (Specifically) Good posture has never been more vital, both psychologically and physically, than in today's tense, push-button sit-down world." It is also developed by such cause-effect relationships as: "Since good posture is something you achieve with your body, you must learn it in your body and not just in your mind;" and, "To keep good posture after you have found it, you need to get fit and stay fit with sensible exercise."

In the procedural part of the Expository-Procedural discourse, we notice such sequential or concurrent relationships as: "Now, keeping your back and head flat against the wall, slowly move your feet back to the wall and straighten your legs until you are in a standing position. Finally, walk round the room, maintaining the same posture; then place your back against the wall again to see if you have held the right position."

So to sum up, we have seen how discourse tends to lose style and structure when sentences as paired whole propositions are substituted by simple sentences. Further we have seen how certain relationships between propositions (and between paragraphs) function to form the basic structure or backbone of certain discourse genre. Thus we can conclude that even with this minimal study, the investigation of sentence is well motivated.

C. Semantic Relationships Between Whole Propositions.

Semantic Categories. We move then to a study of relationships between whole propositions. Statement calculus of formal logic posits five basic relationships which can exist between what it terms "prime sentences." These it defines (Stoll, 1961, p. 161) as, "...sentences which either contain no connectives or, by choice, are regarded as 'indivisible'." These five relationships are:

a) Negation: $A, \neg A$ (A, not A).
Derek is a carpenter; Derek is not a carpenter.

b) Conjunction: $A \wedge B$ (A and/but B).
He ran but she walked.

c) Disjunction: $A \vee B$ (A or B).
He is either eating or he is sleeping.

d) Conditional: $A \rightarrow B$ (if A, then B).
If you don't study you will fail your exam.

e) Biconditional: $A \leftrightarrow B$ (A if and only if B), or (if A, then B, and if B, then A).

He will sing if and only if she plays the piano; or
He will sing if she will play the piano and vice versa.

We will call these respectively, Negation, Conjunction, Disjunction, Cause-Effect, and Biconditional. We will use only b, c, and d as semantic domains in our outline of the semantic sentential relationships of English. We cannot use Negation partly because it is not a propositional relationship in the same category with the others, and partly because it is subsumed under Disjunction—Derek is a carpenter or he is not a carpenter. Biconditional as well does not seem to be a productive relationship but rather a subtype of the Cause-Effect relationship.

Semantically we wish to call prime sentences, propositions. By a proposition we mean a single event or state with its modifying nuclear roles. These roles may be events or states in themselves. Other events or states may be included in the proposition provided that they are functioning to modify the roles of either the main event or state or the roles of modifying events or states. (Propositions in deep structure correspond to clauses in surface structure.)

We focus in this paper (and generally in the included sentence papers) on relationships existing between only whole propositions as the domain of sentence, and not on the relationships existing between whole and part propositions. By the latter we mean, for example, the relationships between verbs of cognition and speech and their sentential complements.

1) He said he was going downtown.

2) I know who your father is.

Nor are we focussing on relationships which exist between expletive "it" and its antecedents such as:

3) It is a fact that all such optimism is misplaced.

We are focussing rather on relationships which can exist between whole propositions. We assume that only one single primary relationship exists in any one sentence. Secondary relationships may also exist but are not in focus in the mind of the speaker (unless he is punning and this domain is beyond the purview of our paper). To take an illustration from Robin Lakoff (1971, p. 127):

4) The police came into the room and everyone swallowed their cigarettes.

The primary relationship between the two propositions is a temporal (sequential) one—the sentence being taken from a Narrative discourse. As Robin Lakoff has pointed out, this and also encodes cause-effect (the police's coming caused the swallowing of the cigarettes). But we maintain that the cause-effect relationship is not in focus in the mind of the narrator. He is simply story telling and sequence in time is in focus. So we claim sequence to be primary, and cause-effect to be secondary based on the larger discourse context in which the sentence is found.

Secondary relationships may also exist alongside of a primary relationship as long as they are functioning to modify one of the propositions involved in the primary relationship. Example 5 is an illustration of this where the _but_ signals a secondary relationship modifying the Result of a Reason-Result sentence.

Ranking of Relationships. Within any sentence in which there are several relationships encoded, we claim that only one is primary or dominant and that others, if any, play a subsidiary role to it. For the answer as to which relationship is primary, we turn again to statement calculus for our clue which posits that cause-effect relationships take precedence over all other relationships. I quote from Robert Stoll (1961, p. 163), "We agree that $\leftrightarrow$ is the strongest connective (that is, it is to encompass most), and then follows $\rightarrow$. Next in order are $\wedge$ and $\vee$, which are assigned equal strength, and then follows $\neg$, the weakest connective." By and large we agree with this statement, however, when _but_ ($\wedge$) involves contraexpectancy, we hold that it outranks both _and_ ($\wedge$) and _or_ ($\vee$). This exception may stem from the fact that contraexpectancy involves cause-effect or expectancy patterns.

Given then the following sentence in which both a cause-effect and a conjunctive (antithetical) relationship are encoded, we are bound to give precedence to the cause-effect relationship. (Examples 5-7 are all from Longacre 1968, Vol. II, p. 6.)

5) Because water is scarce some take sponge baths but others have stopped bathing entirely.

The basic relationship here is therefore cause-effect with an antithetical relationship embedded in the effect proposition, and _not_ an antithetical sentence with a cause margin. We label the sentence therefore a Reason-Result sentence.

The question then arises as to which relationship is primary if a certain sentence contains two cause-effect relationships. The rule that we posit for this situation is that the relationship which is stated first is primary. Note Example 6.

6) In order to save water he would have gone without bathing entirely if she had been content with a sponge bath.

In this sentence both a Purpose-Result relationship (in order to save water he would have gone without bathing entirely), and a Contrafactual relationship (he would have gone without bathing entirely if she had been content with a sponge bath) are encoded. Which one dominates the sentence or is primary? According to our rule we must label it a Purpose-Result sentence since that relationship is stated first. We therefore classify it as a Purpose-Result sentence with a Contrafactual sentence embedded in the Result proposition.

We also posit that temporal relationships (sequential or simultaneous) if they apply equally to both propositions of a preceding or following paired propositional relationship outrank the relationship of the propositional pair if it is conjunctive or disjunctive.

7) When water is scarce some take sponge baths but others stop bathing entirely.

8) When water is scarce we either take sponge baths or go without bathing entirely.

We therefore label Examples 7 and 8 Sequential sentences, 7 having a conjunctive (antithetical) relationship embedded in the second proposition, and 8 having a disjunctive (alternative) relationship embedded in its second proposition. Note that the two sentences although seeming to be Simultaneous relationships, are really Sequential (bordering on cause-effect), the condition of scarce water having to prevail before people begin to take sponge baths. Note also that the when is a close synonym for if in these sentences. (Examples 5-7 are all analyzed conversely to our analysis by Longacre who names them respectively: Antithetical Sentence with preposed Causal Margin; Contrary-to-fact Condition with preposed Purpose Margin; and Antithetical Sentence with preposed Time Margin.)

Finally we hold that but, when involving the meaning component contraexpectancy, outranks contrastive but, and, and or. This may be because contraexpectancy involves cause-effect expectancy patterns and these outrank other relationships.

9) She had fish and chips and he had a steak, but neither of them enjoyed the dinner.

10) John is either reading or he is relaxing but you may see him.

Both sentences we label Antithetical—Example 9 has an Additive sentence embedded in the first proposition while Example 10 has an Alternative sentence embedded in the first proposition. (Note that it is probably more accurate to say that the embedded sentence in 9 is Contrast rather than Additive.)

In summary then we have posited the following four rules to determine the primary relationship in a sentence.

a) The cause-effect relationship outranks all other relationships.

b) If two or more cause-effect relationships are present in a single sentence, the relationship stated first outranks the others.

c) Temporal relationships, if they apply equally to both propositions of a preceding or following conjunctive or disjunctive relationship, outrank that relationship.

d) __But__ when involving the meaning component of contraexpectancy, outranks __and__, __or__, and contrastive __but__.

One final note needs to be made about relationships. Some relationships require two and only two propositions, others permit more than two. However we still hold that only one primary relationship can be permitted per sentence. Disjunctive (not with excluded middle) is a relationship which permits several propositions but whose primary relationship of __choice__ among them remains singular.

__Semantic Tree__. Given then the relationships which exist between whole propositions, we have attempted to put them into a system and present them in the form of a tree diagram. All sentential relationships can be subsumed under the three logical headings of Cause-Effect, Conjunction, and Disjunction. The sentences at the terminal nodes of the tree are meant to be illustrative of the relationship of the node and where possible to be universally valid across cultural boundaries. The linguist technician is therefore encouraged to use them to elicit similar relationships in the language he is studying as a means of beginning sentence analysis. In some cases where our suggested example fails to elicit the same relationship, a more culturally valid example could be substituted. Example 11a should be universally valid as a Condition-Consequence relationship, except of course, in cultures in which houses above the ground are unknown. In such a case, perhaps "cliff" could be substituted for "roof."

1. __Cause-Effect Relationships__ (A--->B).

We will now go through the tree (Figure 5) from right to left explaining our use of semantic labels and commenting on the relationships we have noted. The first division in our tree is between Cause-Effect and Non-Cause-Effect type relationships. It is interesting to observe that by means of a transform battery, the whole range of Cause-Effect relationships (plus some others) can be generated from a single Conditional sentence. Note the following battery:

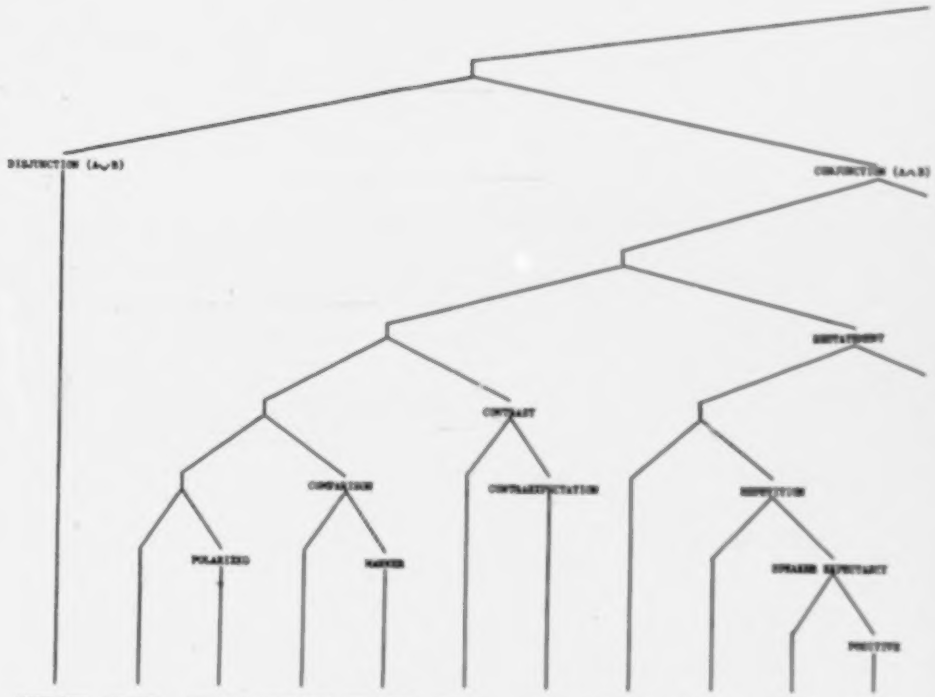
11a) If you step off the roof you will fall.] Condition-Consequence.
11b) Step off the roof and you will fall.]

12) Had he stepped off the roof he would have fallen. Contrafactual.

13a) He stepped off the roof so/therefore he fell.] Reason-Result.
13b) Because he stepped off the roof he fell.]

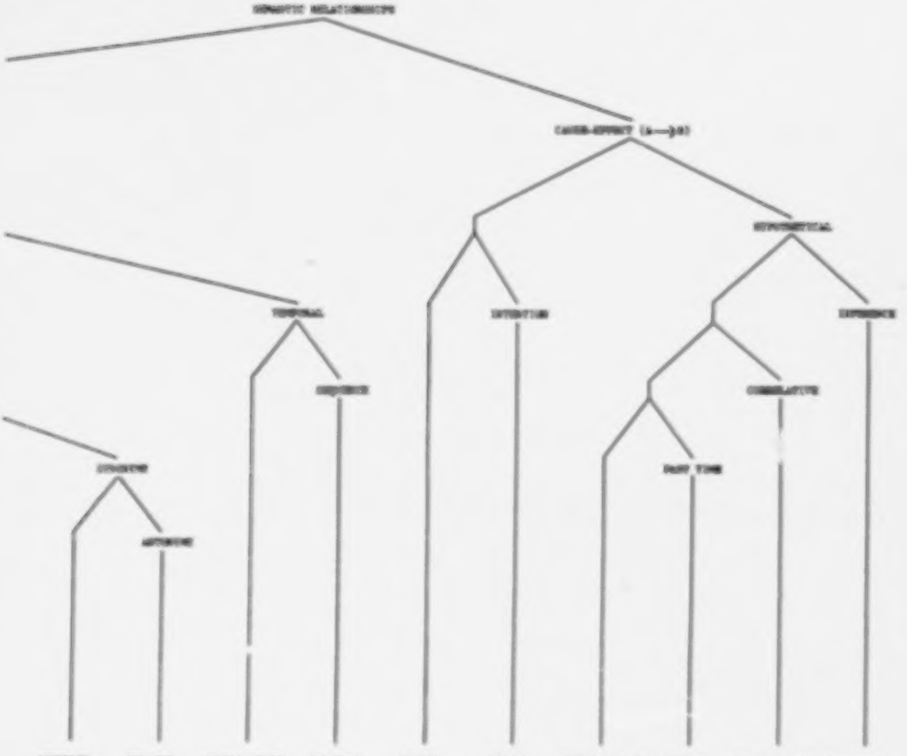
14) In order to fall he stepped off the roof. Purpose-Result.

15) The quicker you step off the roof, the quicker you will fall. Proportional.



ALTERNATIVE	ADDITIVE	QUESTION-RESPONSE	COMPARATIVE OF DEGREE	COMPARATIVE OF MANNER	CONTRAST	ANTITHETICAL	GENERIC-SPECIFIC	RECAPITULATION	NEGATIVE ECHO	POSITIVE ECHO
He is either coming or he's not. Don't step off the roof or you will fall. Step off the roof or you won't fall.	He eats much and he sleeps much. There was food and there was water.	What is your life? it is a vapor.	He is taller than I.	He eats like a pig.	They have food and shelter but we have none of these things. Although they have food and shelter, we have none of these things.	He stepped off the roof but he didn't fall. Although he stepped off the roof, he didn't fall. Step off the roof, you won't fall.	They have everything; they have food; they have clothing; they have fishing; they have houses.	We ate; we ate ravenously.	You won't go out alone at night will you?	You did bring the food, didn't you?

Figure 5. Semantic Relations Between Whole Propositions in English.



IDENTITY-PARAPHRASE

The tiger charged; he ran headlong into the waiting snare.

NEGATED ANTONYM

He is not dead; he's alive.

Let the boy go; don't try to stop him.

SIMULTANEITY

While the men worked in the fields, the women worked at home.

SEQUENCE

They cooked the meal and ate it heartily.

After they cooked the meal they ate it heartily.

Having cooked the meal they ate it heartily.

REASON-RESULT

He stepped off the roof so/therefore he fell.

Because he stepped off the roof, he fell.

MEANS-PURPOSE

He stabbed the tiger in order to kill it.

CONDITION-CONSEQUENCE

If you step off the roof you will fall.

Step off the roof and you will fall.

CONTRA-FACTUAL

Had he stepped off the roof he would have fallen.

PROPORTIONAL

The quicker you get back the quicker you can eat.

GROUNDS-IMPLICATION

She is pale so she must be sick.

16) He stepped off the roof so he must have fallen. Grounds-Implication.

17a) He stepped off the roof and then he fell.
17b) After he stepped off the roof he fell.
Sequence.

18a) He stepped off the roof but he didn't fall.
18b) Although he stepped off the roof he didn't fall.
18c) Step off the roof, you won't fall.
Antithetical.

19a) Don't step off the roof or you will fall.
19b) Step off the roof or you won't fall.
Alternative.

The fact that we have been able to include all of our terminal nodes under Cause-Effect as transforms of one kernel conditional sentence gives us good reason to include them all under the general heading of Cause-Effect. We will further defend this choice as we consider each individual sentence relationship. Examples 18 and 19 are not considered cause-effect and will be commented on under Antithetical and Alternative. Example 17 could be considered cause-effect perhaps because of the strong cause-effect relationship which underlies it, and the close relationship between temporal sequence and logical (cause-effect) sequence. In such cases where it could be classified as either, the context must be the final arbiter as was noted in Example 4 above.

Grounds-Implication. The first division under Cause-Effect is labeled *hypothetical*. By this we mean that the sentences under this node are up for proof. Nothing in them indicates that they have occurred; they come under the rubric of prediction and supposition. The sentence type Grounds-Implication falls under the *inference* node. It is interesting to note that this type is actually the second premise and conclusion of an inference argument, such as:

20) All pale people are sick.
She is pale.
So she must be sick.

The first premise is taken as an implicit underlying cause of the final conclusion. In the sentence however, since the first premise of the argument is omitted, the Grounds becomes inferential cause by proxy. In order to elicit the Grounds as the case in the mind of the speaker, the question must be asked, Why do you *think* she is sick? Answer: *Because* she is pale. It is this element of thought, inference, or conclusion which characterizes this sentence relationship.

21) She is pale so (I think, infer, conclude that) she must be sick.
Grounds-Implication.

The sentence is not a statement of fact, but merely a statement of the speaker's opinion which can be disproved.

Proportional. The Proportional sentence comes under the semantic notion of correlativity by which is meant that one proposition varies in degree or quality either in direct or inverse proportion to the other proposition.

22) The quicker you return, the quicker you can eat. Direct Proportion.

23) The more I tell you the less you obey me. Inverse Proportion.

There may be some question about the validity of including this sentence under the Cause-Effect heading. If the question is asked, What will cause you to eat quickly? the answer is, My quick returning. And likewise to the question, What will be the result if you return quickly? the answer is, I will be able to eat quickly. These indicate that the underlying relationship between the two is cause-effect.

Condition-Consequence. The cause of this relationship is set forth as provisional, the effect of which will only occur provided that the cause is realized. The sentence is therefore always set in an unrealized or subjunctive mode.

24) If you step off the roof you will fall. Condition-Consequence.

An interesting feature about this type is that it requires that both of its propositions be either positive or both negative in cultural or situational value. We will illustrate presently what we mean by this. It may be true of all cause-effect sentences and if so would lead us to conclude that only good causes underlie good results and bad causes, bad results. Notice what happens if we put a negative into the condition of Example 24.

25) If you don't step off the roof you won't fall.

We were compelled to match the don't of proposition one with a won't in proposition two. This feature is a subtle one and some might object on the basis that you can say the following sentence which seems to be negative-positive.

26) If you don't talk too much people will like you.

But the relationship is still positive to positive since talk too much has a negative cultural value which is negated making it a positive. Note that conjecture, not fact, is involved in this relationship.

The second example of Condition-Consequence noted in our cause-effect battery, Example 11b (Step off the roof and you will fall), is a subtype of the Conditional sentence in which the speaker expects the hearer to be familiar with the information given. He gives it as a reminder, caution, or warning.

Contrafactual. This pair is merely a Condition-Consequence sentence viewed from the present as having already happened or as it turns out, as having not happened. In the mind of the speaker the truth value of his assertion is actually the opposite of what is stated. Therefore the actual truth of:

27) Had he stepped off the roof, he would have fallen. Contrafactual.

is, He did not step off the roof and he didn't fall. His assertion however, is merely conjecture, based on laws of cause-effect or culturally determined expectancy patterns, and is not as such a statement of fact.

Means-Purpose. There are two ways of looking at this relationship—the one indicates that it is cause-effect, the other that it is effect-cause.

28) He stabbed the tiger in order to kill it. Means-Purpose.

Is the Means (the stabbing of the tiger) the cause of an intended effect, or is the Purpose (in order to *kill it*) the cause of the action portrayed in the Means proposition? In reality intention always precedes action and constitutes the underlying cause of any intermediate means. Note that in this relationship we are given only the intention and the means and not the final result. If we ask, What was the *cause* of his stabbing the tiger? we get the reply, *Because* he *wanted* to kill it. If we in turn ask, What resulted because he wanted to kill the tiger? we get, He stabbed it. This seems to firmly establish the Purpose proposition as the cause and the Means as effect in this sentence type.

Note that it is not permitted to ask, What was the cause of his killing the tiger? because in our original Means-Purpose sentence he did not yet kill it. Nor are we permitted to ask, Why did he want to kill the tiger? since the answer (Because he did not want it to kill him), takes us out of the domain of our original sentence and is therefore not valid as proof of anything.

The semantic feature that distinguished this sentence is *intention* or *desire*. Note the frequent use of *want* in the questions and answers about it above. We move with this sentence type out of the domain of conjecture into statement of fact.

Reason-Result. This is the most clearly cause-effect of all of the cause-effect relationships. It can be encoded with any of three grammatical signals—*because*, *so*, or *therefore*.

29a) He stepped off the roof so/therefore he fell. ⎤ Reason-Result.
29b) Because he stepped off the roof, he fell. ⎦

Of the six cause-effect patterns given, only Grounds-Implication and Proportional reject permutation of their two propositions. If the propositions of these two are permuted it results in a change of sentence pattern.

30) He is pale so he must be sick. ⟹
So he must be sick, he is pale.*
He must be sick because he is pale.

31) The quicker you return the quicker you can eat. ⟹
The quicker you can eat, the quicker you return.*
If you want to eat quickly, you must get back quickly.

2. *Conjunction* (A ∧ B).

The first node we encounter under Non-Cause-Effect is *conjunction* which in logic includes both the notions of *and* and *but*. That is, it includes both coupling and contrast. We have also included under this node the features of time and restatement.

2.1 Temporal.

Temporal relationships can be divided into the broad categories of Sequence and Simultaneity.

32a) They cooked the meal and ate it heartily.
32b) After they cooked the meal they ate it heartily. Sequence.
32c) Having cooked the meal they ate it heartily.

33) While the men worked in the fields the women worked at home. Simultaneity.

The subcategories of pure sequence versus overlapping sequence, and of coterminus simultaneity versus inclusive simultaneity, are not shown in the tree. In pure sequence, one action follows the other with no overlap whereas overlapping sequence permits the second to begin before the first has finished. Coterminus simultaneity requires that both actions begin and end at precisely the same time whereas inclusive simultaneity merely requires that the time span of one be included within the time span of the other.

It is in this area of simultaneity that some have distinguished a Circumstantial relationship, in which one proposition forms the circumstance, setting, or situation under which the other occurs. This may be a real distinction especially if we say that we have this relationship if and only if the first proposition is a state, not an event.

34) While the weather continued fair, the men continued to work.

We have likewise not included this distinction of simultaneity in the tree.

2.2 Restatement.

Restatement is a conjunctive relationship in which one proposition repeats or restates, either verbally or conceptually, part or all of another and modifies it in some way. The test for a restatement relationship is, Can you insert the words, "That is," between the propositions and still retain the original sense of the sentence.

Negated Antonym and Paraphrase. The first node under restatement is synonomy which requires that the two propositions be synonomous either by negating an antonym of one of the constituents of the other or by providing a synonym for one of the constituents of the other. This constituent in both cases is typically and possibly obligatorily the predicate.

35) He is not dead; he is alive. Negated Antonym.

36) The tiger charged; he ran headlong into the waiting snare. Paraphrase.

Positive and Negative Echo Questions. The two echo questions qualify as restatement sentences in that the second proposition restates the first in the form of a formulaic truncated question with the added semantic component of speaker expectancy. In the Positive Echo, the speaker uses a positive statement in the first proposition coupled with a negative statement in the second to indicate that he expects a positive answer. In the Negative Echo he uses a negative statement in the first proposition and a positive statement in the second to signal that he expects a negative answer.

37) You did bring the food, didn't you? Positive Echo.

38) You won't go out alone at night, will you? Negative Echo.

We have included these under the repetition node because the tag question elliptically repeats the first proposition in the form of a pro-verb (in Example 37 the pro-verb is did; in Example 38 the pro-verb is will).

Recapitulation. Recapitulation is a restatement sentence requiring that at least the Actor or Undergoer and the Predicate of one proposition be repeated by the second proposition.

39) We ate; we ate ravenously. Recapitulation.

Generic-Specific. This is a restatement relationship in which one generic proposition is restated in the form of one or more specific propositions.

40) They have everything; they have food; they have clothing; they have fields; they have houses. Generic-Specific.

2.3 Contrast.

The two relationships coming under the semantic notion of contrast—

Antithetical and Contrast—are closely related to each other in both form and meaning. They are both a subclass of contrast—the one stemming from an expectancy pattern which is countered; the other from a comparison of two opposing situations. We have labeled the first Antithetical and the second Contrast.

Antithetical. The first of these involves what Robin Lakoff (1971 p. 135) calls, "an assymetric use of *but*" (because the two propositions cannot be permuted).

41a) He stepped off the roof but he didn't fall.] Antithetical.
41b) Although he stepped off the roof, he didn't fall.]

Cause-effect is involved in this type and forms the basis for the expectancy pattern underlying the contrast. We have not included Antithetical under Cause-Effect, however, because no Why-question will elicit either proposition as the cause. The relationship is rather one of contrast between a thesis and an antithesis. This becomes clear when the sentence is paraphrased as follows:

42) He stepped off the roof but in contrast to what you are thinking, he didn't fall.

Returning to Example 18c (Step off the roof, you won't fall) we classify it as a form of the Antithetical relationship. Depending upon the situation in which it is spoken, this subtype can vary from a dare to an encouragement. It is often used by parents or instructors to inspire children or students to undertake an unfamiliar action.

43) Take a deep breath and relax on the water, you won't sink.

Note that this sentence may be paraphrased, Take a deep breath and relax on the water; in contrast to what you think, you won't sink.

Antithetical includes Longacre's Expected Consequent Antithetical and Consideration Which Counter-Balances Antithetical (1970 p. 797).

Contrast. This type requires that two constituents of one proposition be compared or contrasted with two of the other.

44a) They have food and shelter but we have none of these things. Contrast.
44b) Although they have food and shelter we have none of these things.

Note that *they* and *food and shelter* are contrasted with *we* and *none of these things*. Contrast includes Longacre's Denied Alternative Antithetical (1970 p. 797). It corresponds to Robin Lakoff's "symmetrical *but*" (1971 p. 135), in that the propositions may be permuted.

In both Antithetical and Contrast sentences, *although* functions as a paraphrase of *but*. The question arises then, Is it always a paraphrase of *but*? We have noted two situations in which it is not. The first is where we have a negated antonym in one proposition and an antonym in the other.

45) He is not dead but he's alive.

46) Although he is not dead, he is alive.*

The reason that the *although* paraphrase does not apply here is that *although* functions to contrast degrees or gradients of an absolute, but not synonomous constituents (*not* *dead* and *alive* are here synonyms). *But*, on the other hand, is able to completely ignore the *not* and function to contrast the antonyms *dead* and *alive*. Note, however, what happens when we modify one of the absolutes, making it a relative term.

47) Although he is not dead, he is *barely* alive.

Now the *although* functions because it is serving to contrast degrees of death—*dead* versus *barely* *alive*. This difference between *but* and *although* was suggested by Longacre (1967 p. 19).

The second situation where the two contrast is with deleted information. *But* permits deletion of the Result proposition of an embedded Reason-Result sentence whereas *although* does not permit it.

48) I was going to the store but Kenny got sick.

49) Although I was going to the store, Kenny got sick.*

Although refuses to function as long as the result of Kenny's sickness remains implicit. But note:

50) Although I was going to the store, Kenny got sick so I couldn't.

2.4 Non-Contrast.

Comparative of Manner and Degree. The first label under the Non-Contrast node is *comparison* which requires that the two propositions be related to each other by positive resemblance of either manner or degree.

51) He eats like a pig. Comparative of Manner.

52) He is taller than I. Comparative of Degree.

While in English these may not qualify as two whole propositions on the surface, certainly two whole propositions are involved in the deep structure. In an another language they may surface as two, as for example, As a pig eats so he eats.

Question-Response. This relationship falls under the node labeled *polarized*. It is polarized in the sense that one proposition is minus, the other plus; one is stimulus, the other response. We are not focussing on the Question-Response found in dialogue but rather on the rhetorical device used in monologue.

53) What is your life; it is a vapor. Question-Response.

Additive. It is difficult to join two propositions together in a purely semantic coupling or additive relationship. One would think that and would do this for us quite simply. But notice the three following sentences all joined with and but none of them additive in relationship.

54) The police came in and everyone swallowed their cigarettes. Sequence.

55) Step off the roof and you will fall. Condition-Consequence.

56) He will do the theoretical work and she will do the practical. Contrast.

In an earlier draft of this paper we tried to join two events widely separated in semantic domain with and in an attempt to show that it could be done. Our sentence was:

57) He will go and the sun won't shine.

Reaction to the two propositions by others however, was that there was a cause-effect relationship between them—that is, He will go and (he is such a sourpuss that) the sun won't shine.

Even without and events linked together tend to take on a cause-effect or sequential relationship. Note:

58) I came; I saw: I conquered.

However, where two events or states are coupled together with only one constituent of each which is varied, a true semantic additive relationship is obtained.

59) There was food and there was water. Additive.

60) He eats much and he sleeps much. Additive.

If we vary two constituents, the relationship becomes one of contrast—He eats much and he sleeps little. Here eating is contrasted with sleeping and much with little.

The same relationship is signaled by the discontinuous links both...and and neither...nor. Whereas both...and permits only two propositions, the Additive sentence is typically open-ended (that is, permits two or more propositions).

3. *Disjunction* ($A \vee B$).

The semantic notion that characterizes this relationship is *choice*. This choice is either between the positive and negative aspect of the two predicates involved, between situational opposites, or between corresponding constituents of each proposition. They are illustrated as follows:

61) He's either coming or he's not coming. (Positive-Negative).

62) He's either sleeping or he's eating. (Alternate Predicates).

63) Did Brad eat the pie or did Darryn? (Alternate Actors).

64) Do you walk to work or do you carry your lunch?*

65) Do you walk to work or do you take the bus? (Situational Opposites).

The latter two illustrate the need for situational opposites in the Alternative sentence. Since you can both *walk to work* and *carry your lunch* at the same time, they do not qualify as alternatives. The sense is rectified when a mutually exclusive activity to *walk to work* is introduced such as *take the bus*. The same would be true of:

66) Do you carry your lunch or buy it at the cafe?

The feature of choice is also seen in our transform of the Conditional sentence, If you step off the roof you will fall.

67) Don't step off the roof *or* you will fall.

The choice here is subtle, but is between obedience and consequences, which are again mutually exclusive. We have classified this sentence with Alternative rather than Cause-Effect because the supposed result *you will fall*, is the result of stepping off the roof, *not* of not stepping off the roof as the sentence commands. This is seen if the sentence is paraphrased as follows, Don't step off the roof because if you do you will fall. In our alternative sentence the *or* takes the place of *because if you do*. The basic relationship then is choice between obedience and disobedience with consequences.

Mutual exclusion is not the only feature which characterizes disjunction along with choice. Choices can be presented in the form of a list, one or more of which may be selected.

68) We will go by bus, or by jeep, or if things are really bad we will walk.

D. Relationship of Surface to Deep Structures.

Tagmemicists have always been interested in this problem basically because the tagmeme is a form (surface)-meaning (deep) composite. Sentence structure has been an especially good area in which to study this relationship perhaps because of the obvious discrepancy between the two.

Mary Ruth Wise in her paper on Palikur (1971) has contributed much to this problem. She has charted the two categories in the form of a matrix the deep (semantic) structures forming the vertical dimension and the surface (grammatical structures forming the horizontal dimension. Two salient features which emerged from her study were that, "...the deep structure relation between actions may remain invariant through variant surface structures, or the surface structure may remain invariant through variant deep structure relations," and that, "Within a discourse...the boundaries of deep structure sentences and surface structure sentences are not always co-terminous."

Another conclusion which can be drawn from our study is that the relationship between surface and deep is arbitrary and therefore language specific. That is, given a certain deep structure relationship, it is impossible to predict with accuracy what its surface encoding will be. For the single deep relation of Sequence, a speaker of English has a choice of at least three contrasting surface forms.

68) They cooked the meal and ate it. Coordinate (Base-Link-Base).

69) After they cooked the meal, they ate it. Subordinate (Relator-Axis-Base-Base).

70) Having cooked the meal they ate it. Subordinate (Participial Base-Base).

In Tamang a speaker would have a choice of the two Subordinate structures noted for English but has no Coordinate choice. In Palikur a speaker would have the same Subordinate choice, but his Coordinate choice would be a paratactic Base-Base construction.

Having noted this, there are some general conclusions which can be drawn which indicate that the relationship between surface and deep may not be completely arbitrary. We will note these presently but first would like to discuss the means we used to study this relationship.

We have attempted to keep these two categories separate, but still to take both into consideration when determining structure. Again Wise's Palikur article pointed us in the right direction for keeping the two in proper balance. For the specific method of mapping the two together in a single chart which we have used I am indebted to Ray Christmas whose paper, Sentence Patterns in Kupia, appears in this volume. The method is simply to construct a tree of the semantic relationships existing in a language similar to the one in Figure 5. The terminal nodes of this tree then, instead of being listed side by side, sink into a three or four level grammatical grid to the level appropriate to the structure of each. The three levels are basically Coordinate and Subordinate with Coordinate divided into linked versus paratactic structures. If subordinate is similarly divided, it is between those structures whose dependent half is participial in form and those whose dependent half is made so by the presence of a relator.

We have thereby relegated to surface structure only these four categories. The first question we ask when determining grammatical status is, Is it a relationship between structures of equal grammatical status (either independent or dependent) or not? If so we label it Coordinate. If it is Coordinate and there is a link joining the two, we assign it to the Base-Link-Base division, otherwise to the Base-Base division. If the relationship is between constructions of unequal grammatical status we label it Subordinate and then assign it to either the participial or axis-relator class. Participial structures tend to be static verb forms whereas relators may allow the verb form to vary. Participial endings typically occur exclusively on verbs while relators tend to be more free to occur with either nouns or verbs. Certainly our grammatical grid could be finer, but we have cut off at this point feeling that it is sufficiently fine to be readily usable and to show up pattern from language to language.

Each sentence paper in this volume contains such a display showing the interplay between deep and surface for its own language. The Halbi and Maithili papers (the latter is included in Hale 1973, Vol. I) also contain these displays in reverse in which the tree is composed of grammatical criteria while the grid receiving the terminal nodes is semantic. Alice Davis, author of the Maithili paper, has used the two displays to establish contrast between sentence types. She reasons as follows: "In order to establish contrast between sentence types, following the tagmemic form-meaning composite standard, we require that each sentence type must appear on a separate branch of both the Semantic Tree and the Grammar Tree. If two types emanate from the same terminal branch on either one of the trees, they are considered as subtypes. Thus, although the Reason sentence types appear in three different places on the Grammar Tree, they are classes as sub-types because they all emerge from the same branch on the Semantic Tree."

Ray Christmas has done a similar thing in constructing a matrix of grammatical differences (Figure 3 in the Kupia paper), in addition to his semantic tree. He then insists that a sentence type must have at least one grammatical and one semantic difference to qualify as a contrastive type.

We now present the dual structure displays of six languages minus the super structure of the Semantic trees (Figures 6-11). That is, merely the four-layer grammatical grid and the terminal nodes of the Semantic trees will be presented for each language. This will allow us to observe all the languages together with their various grammatical encoding patterns, and enable us to draw conclusions about their similarities and differences. From these then we may be able to abstract something more about the relationship of surface to deep in general.

Four of the languages are Indo-Aryan (Kupia, Halbi, Maithili, and Nepali), so we may expect some similarities of grammatical encoding patterns among them. One is Tibeto-Burman (Tamang), and the other is an Arawakan language of Brazil (Pa'ikur). We have put the sentence types of Palikur, as presented by Wise and Green 1971, into our format in order to give more diversity to our comparison. In doing so we assume responsibility for assigning the types to the broad semantic categories of Cause-Effect, Conjunction, Restatement, Coupling, Complementation, Disjunction and Temporal. We have had to do this also for Nepali since it was not presented in this format. (If we have misrepresented either language it has not been intentional.) Except for one or two types, the assignment was sufficiently straight forward to be without question. For some of the languages it was necessary to decide as well the exact grammatical status of a type since all of the sentence papers in this volume used only a three-level grammatical grid. The languages are grouped together according to language family, the four Indo-Aryan languages being listed first.

We can make the following general observations about these displays:

a) Cause-effect relationships tend to encode as subordinate structures. Palikur is an exception to this statement but even then it has several of its Cause-Effect sentences encoding as subordinate.

b) Disjunction relationships almost uniformly encode as coordinate structures with a link. Palikur is the sole exception to this, its Disjunctive sentence being a paratactic structure.

c) Restatement relationships tend to be paratactic in form. The items not so labeled but qualifying as Restatement in the Tamang, Nepali, and Palikur displays are Paraphrase and Generic-Specific. (These types will be found grouped under the semantic category of Conjunction in these three languages.)

d) Conjunctive relationships tend to encode as coordinate formations. This includes the terms Coupling and Complementation.

e) Temporal relationships are largely subordinate in structure. This may be due to their affinity to Cause-Effect relationships.

While it is true that there is a great deal of similarity across the three language families (Arawakan, Indo-Aryan, and Tibeto-Burman), this may not be entirely unexpected. Tamang has been under the strong influence of Indo-Aryan (Nepali) for some time and we could dismiss the similarity with Arawakan as coincidence. It is evident that we need a much wider sampling of languages and language families before any firm

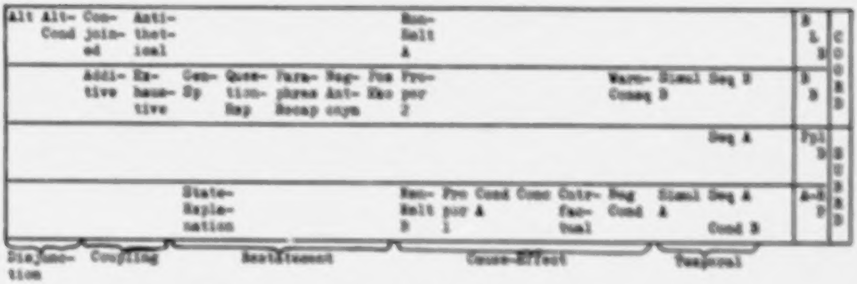


Figure 6. Kupia Dual Structure Display.

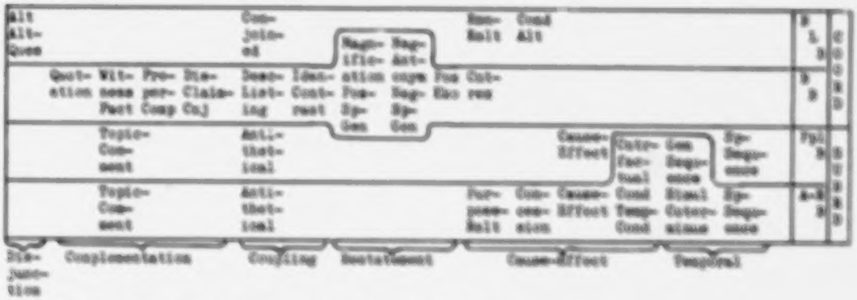


Figure 7. Halbi Dual Structure Display.

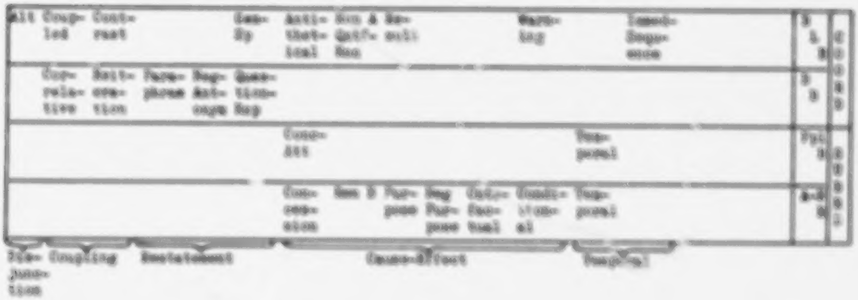


Figure 8. Maithili Dual Structure Display.

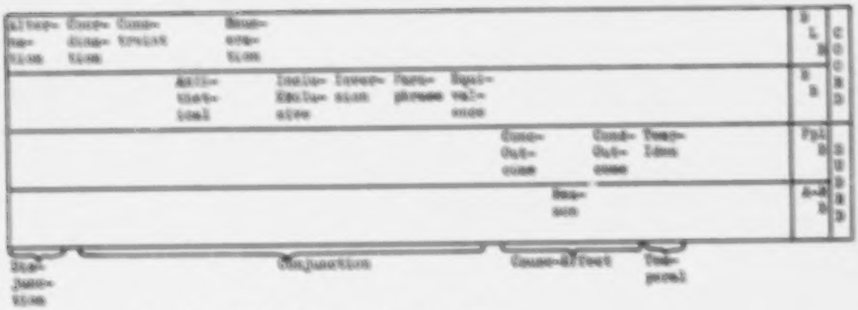


Figure 9. Nepali Dual Structure Display.

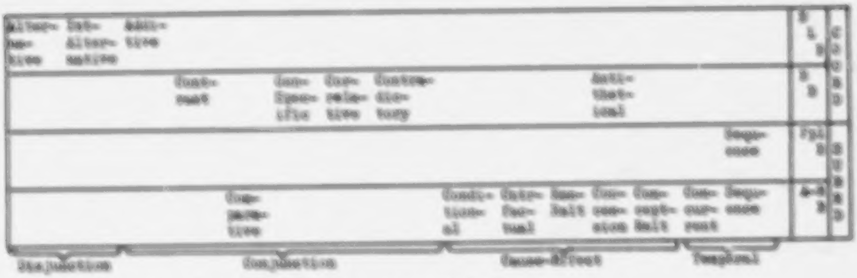


Figure 10. Tamang Dual Structure Display.

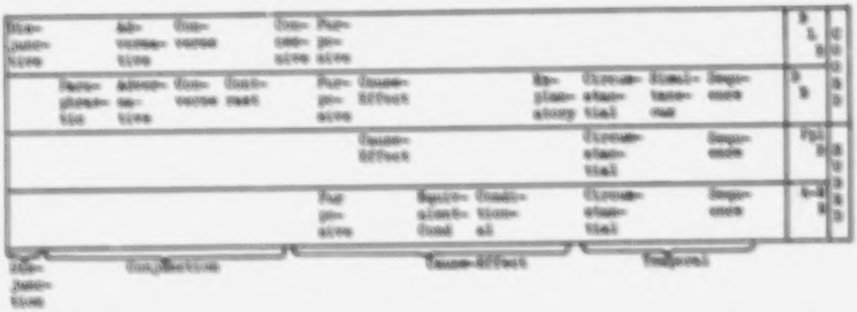


Figure 11. Palibur (Arawakan) Dual Structure Display.

conclusions can be drawn. Perhaps by making our grammatical grid finer and our semantic domains more sharply defined we would get more contrastive patterns from language to language. Our hunch is that language families will display marked tendencies towards uniformity of encoding patterns from deep to surface and that this uniformity will be a contributing factor to enable us to more exactly classify a language. While semantic notions seem to definitely point toward a universal base, it is the grammatical encoding patterns which need further study as do the relationships between them. As the study of semantic universals is proving fruitful, we are encouraged to believe that the study of grammatical encoding patterns and their relationships to semantic notions will as well.

ABBREVIATIONS

Alt	Alternative
Anti	Antithetical
A-R B	Axis-Relator-Base Base
Att	Attributive
BLB	Base Link Base
BB	Base Base
C-E	Cause-Effect
Cnj	Conjecture
Cntr	Contra
Cntrex	Contraexpectation
Comp	Comparison/Comparative
Cond	Conditional
Coord	Coordinate
Consq	Consequent/Consequence
Desc	Descriptive
Eko	Echo
Gen	Generic/General
Iden	Identity
Immed	Immediate
Inclu	Inclusive
Int	Interrogative
Loc	Locative
Neg	Negative
Para	Paraphrase
Pos	Positive
Ppl B	Participial-Base Base
Propor	Proportional
Ques	Question
Qntf	Quantified
Recap	Recapitulation

Rslt	Result
Rsn	Reason
Seq	Sequence
Simul	Simultaneous
Sp	Specific
Temp	Temporal

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Sentence Patterns in Halbi

Fran Woods

A. Introduction.

Halbi is the lingua franca of the Bastar District in the interior of the state of Madhya Pradesh, India. According to the 1961 Census of India there are 300,000 native speakers of the language. Halbi belongs to the Indo-Aryan family of languages and is closely related to Oriya, Hindi, and Marathi.

As a member of the Summer Institute of Linguistics working under the auspices of Deccan College, Poona, the author commenced research in Halbi in 1967. Between 1967 and 1969 the author and a co-worker, Miss Betsy Schuyler, lived in the village of Bhatpal in Bastar District. The present analysis is based on the language as spoken in Bhatpal village.

The author is particularly indebted to Mr. Chingaru Ram Murea, Mr. Durga Ram Murea, and Mr. Lula Ram Murea, all of Bhatpal village, for their able assistance in sorting out the intricacies of their language; and to my co-worker, Betsy Schuyler, for her continuing interest and encouragement. The author is also indebted to Dr. Kenneth L. Pike, Dr. Ronald L. Trail, Dr. Robert E. Longacre, and other members of the Summer Institute of Linguistics for their stimulation in working on the sentence in Halbi.

It is the author's view that a sentence is basically composed of either one proposition (clause) with its peripheral elements, or two or more propositions (clauses) with only one primary relationship, plus periphery. Focusing on the latter aspect the purpose of this paper is to describe the sentence structure of Halbi. Leaving the description of one-proposition-sentence at this point, we focus on sentence as grammatically a level of clause combination and semantically a level of proposition combination. The interplay of these two features is what we have used to arrive at the twenty-nine sentence types here posited.

The first section of the paper describes the general grammatical structure of the sentence in Halbi and includes a description of sentence nucleus and sentence periphery. The contrastive sentence types are then incorporated into two trees. The first tree is a semantic or propositional relationship tree where each node is a contrastive semantic feature. The second tree is a grammatical structure tree where each node is a contrastive grammatical feature.

The second section of the paper describes in detail the contrastive sentence types. Each sentence is introduced with a short grammatical description followed by a basic sentence formula using the four box system developed by Pike. Immediately following the formula is a description of the semantic relationship between the propositions. This is followed by a more detailed grammatical description including the Halbi examples.

Following this section is a short section on sentence combination describing simultaneous double encoding of various propositional relationships and the embedding of coordinate and alternate constructions in dependent bases. Finally, a section on distribution illustrates some of the recursive embedding of one sentence type within another which may occur in Halbi.

In the basic sentence formulas, links are formalized using a six box system. Box 3 gives the Halbi word or words while box 6 gives the English gloss. Halbi words written with capital letters in box 3 (such as GUNE) indicate one of a class of conjunctions. This is also true in the grammatical descriptions where relators (such as ALE) and verbal suffixes (such as -UAY) are written with capital letters to indicate one of class of fillers.

The following is a summary statement of the Halbi phonology and the orthography used for the examples and illustrations given in Halbi. In Figures 1, 2, and 3 the consonants and vowels are given together with the orthographic equivalents in those cases where the orthographic spelling is different from the phonemic spelling. In Figure 4 syllable initial clustering with h is illustrated.

p	t	ṭ (T)	c	k
b	d	ḍ (D)	j	g
	s			
m	n			
	l			
	r	ṛ (R)		
w			y	h

Figure 1. Halbi Consonants.

i				u
	e	ə(6)	o	
		a		

Figure 2. Halbi Oral Vowels.

ĩ (i:) ũ (u:)
ẽ (e:) ə̃(6:) õ (1:)
ã (a:)

Figure 3. Halbi Nasalized Vowels.

ph	th	ṭh (Th)	ch	kh
bh	dh	ḍh (Dh)	jh	gh

Figure 4. Syllable Initial Clusters with h.

Throughout the paper, clauses filling the sentence bases are described as belonging to the Active, Eventive, Stative, or Attributive clause sets. The Active clause set includes Intransitive, SemiTransitive, Transitive, and DiTransitive clauses; the Eventive clause set includes Eventive, SemiReceptive, Receptive, and DiReceptive clauses; the Stative set includes Descriptive, SemiStative, Stative, and DiStative clauses; and the Attributive clause set includes Circumstantive, SemiAttributive, Attributive, and DiAttributive clauses. A more complete description of the Halbi Clause may be found in volume two of this report.

During the research, considerable use was made of a concordance of text in Halbi made on the IBM 1410 computer at the University of Oklahoma by the linguistic information retrieval project of the Summer Institute and sponsored by grant GS 1605 of the National Science Foundation.

B. General Structure of the Halbi Sentence.

In Halbi, a sentence consists of a nucleus and an optional periphery. The nucleus of the sentence is that part of the sentence providing the contrastive features which identify the various sentence types in Halbi. The periphery of the sentence generally does not provide the contrastive features distinguishing one sentence from another although there are specialized periphery tagmemes which may only occur with certain sentence types. General periphery tagmemes are common to most types of sentence. In the following paragraphs some general characteristics of the sentence nucleus and then of the sentence periphery are discussed.

1. Characteristics of the Sentence Nucleus.

The sentence nucleus expresses sememic relations between propositions such as coordination, condition-consequent, reason-result, alternation, thesis-antithesis, topic-magnification and the like. These sememic relations encode into various grammatically contrastive sentences. To facilitate the description of the contrastive sentence types, the most common sememic relationship encoding into a particular sentence type is taken as the name of the sentence.

According to Longacre (1968:42), parts of a sentence, "have a certain mutual dependence, cross-reference and cohesiveness." It is these features within the nucleus which distinguish it from the sentence periphery and which prompt the classification of an item as either nuclear or peripheral.

There are two types of nuclear tagmemes—links and bases. Links consist of conjunctions such as ki 'or', nahle 'otherwise', gune 'therefore', aur 'and'. Bases may be dependent or independent and may be joined by the links or merely juxtaposed. The independent bases are filled by independent clauses. The dependent bases are filled by various dependent clauses. A base is termed dependent when any one of the following five factors is applicable:

a) If a base is filled by an axis-relator clause it is dependent and must have another base, not filled by an axis-relator clause, occurring with it.

(DB)leka boRe boRe baRlo jale (IB)bia k6rdebe.
boy big big he grew when wedding they will perform
'When the boy is grown big they will perform the wedding.'

Here the first base is dependent in that it is filled by an axis-relator clause and requires the presence of the second base.

b) If a base is dependent on the rest of the sentence to complete its meaning it is dependent. As a result, a base expressed in imperfect aspect is dependent.

(DB 1)mo:y ni ete jale (DB 2)mortis.
I not I would come if you would die
'If I hadn't come you would have died.'

(DB)616s bai jatibe (IB)pren bai co kirta jamu eta
Alice Bai she would go Fran Bai of reason part. here

Theblise.
she has stayed
'Alice Bai would have gone but because of Fran Bai she has stayed.'

In the first example, the second base is dependent on the first base to complete its meaning. The first base is already dependent in that it is filled by an axis-relator clause. In the second example, the first base is dependent on the second base to complete its meaning.

In the same manner, a base expressed in optative mood is dependent. As such the base with the optative mood is dependent on the independent base to complete its meaning.

(DB)*k6ha:y* *hoo* (IB)raha!
wherever it may be stay!
'*Wherever* *it* *may* *be*, stay there!'

c) If a base is filled by an unexpandable formulaic clause, it is dependent. In the example, the second base in an unexpandable formulaic clause and can never occur alone.

(IB)tumco datun aur ay (DB)*ne*?
you of toothstick other it is *isn't* *that* *so*
'Your toothstick is different, *isn't* *it*?'

d) If the paired prefixes *j*- and *h*- occur in two otherwise independent bases, then both bases are interdependent and thus dependent. The two correlative terms are underlined in the following example.

(DB 1)*je* 16ge pani 16ge roede (DB 2)*hun* 16ge cua:
wherever water place in it will be that place in well

khoRuat.
they will dig
'Wherever there is water, at that place they will dig a well.'

e) If negative markers permute from a normal negative positioning in any sentence type then the base in which they are permuted is dependent.

(DB 1)*leka* *khae* nai (DB 2)ka:y nai.
boy *he* *eats* *not* *is* anything not is
'*The* *boy* *doesn't* *eat*, he doesn't do anything.'

Here the initial base is dependent in that the negative has been permuted from a position preceding the verb and its form has changed. Normally the clause would be *leka* *ni* *khae* 'the boy does not eat.' The second base is dependent in that it is formulaic.

The sentence nucleus is described in detail with reference to each sentence type in the section on contrastive sentence types.

2. *Characteristics of the Sentence Periphery*.

Robert Longacre (1970a:786) divides the sentence periphery into two distinct parts—inner and outer periphery. In this report we have used his outer periphery concept as applying to Halbi sentence. Most, if not all, of his inner peripheral items we have incorporated into the sentence nucleus. This means that a conditional clause is never peripheral to what follows it, but always nuclear indicating a condition-consequent relationship. This is a valid sentence level relationship. In the same way, concession, time, cause, purpose, and circumstance are always considered nuclear to their sentence types.

On the other hand, such items as exclamation, vocative, response, emphatic focus, and time setting are generally not propositional in nature and tend to occur indiscriminately among the sentence types. By these two criteria they are considered peripheral. The fact that some of these are, in fact, limited in distribution to only a few sentence types does not, in our opinion, give sufficient reason for incorporating them into the nucleus of the sentence. The sentence is either composed of only one proposition with accompanying peripheral elements, or two or more propositions with only *one* primary relationship. This relationship may or may not be signalled by a linking tagmeme. To include these items in the nucleus would be to allow more than one relationship to exist within the sentence.

The periphery of the Halbi sentence consists of a number of optional tagmemes which normally occur on the outer extremities of the sentence, but which, in some cases, may even interrupt the internal linear ordering of the sentence nucleus itself.

Most peripheral elements do not influence or restrict the relationship between the propositions in the nucleus and these are termed General Periphery. However, there are some peripheral elements which have some influence on the propositional relationships of the nucleus and these are termed Specialized Periphery. In the following paragraphs these two types of periphery are described in detail.

2.1 General Periphery.

The occurrence of any of the general periphery tagmemes on a sentence is largely discourse conditioned. In a narrative or dialogue, tagmemes such as attention, response, and vocative occur frequently while in other discourses, such as a procedural discourse, they occur infrequently. Also it is to be noted that some sentence types are more prone to attract these general periphery tagmemes than others. Positive Echo Question and Alternative Question Sentences nearly always have the vocative tagmeme occurring with them, while the Generic Temporal-Conditional Sentence rarely does. The general periphery tagmemes fall into two groups:

2.11 Tagmemes Restricted to Prenuclear Position.

These prenuclear tagmemes occur sentence initial only. Usually only one from this group will occur in any one sentence (two exclamations, however, have been observed in one sentence).

Exclamation. The exclamation tagmeme includes such things as: *i aya* 'good grief!', *chi* 'ugh!', *oho re* 'ah ha!', *bap re* 'wow!', and *he:* 'what!'.

Attention. The attention tagmeme includes: *d6ka* 'look!', *ale* 'here!', ede 'here!', he: 'hey!'.

Response. The response tagmeme includes: nai 'no', hou 'yes', ale 'O.K.', k6s6n to 'so what', k6s6n jale 'who knows?'.

Sentence Conjunction. The sentence conjunction tagmeme includes: aur 'and', tebe 'then'.

2.12 Tagmemes Not Restricted in Relation to the Nucleus.

These non-restricted tagmemes occur anywhere within the sentence.

Vocative. The vocative tagmeme includes: miri 'Miri!', bai 'lady!', aya 'Mother!', leka 'Boy!', and any other name or relationship term.

Hesitation. The hesitation tagmeme includes: kay to 'ummmm'.

2.2 Specialized Periphery.

The occurrence of any of the specialized periphery tagmemes on a sentence is conditioned by both the specific sentence type and the occurrence of that sentence within a discourse. The emphatic tagmeme, mant6r '!', may only occur with Contra-Expectation, Antithetical, Identity-Contrast, or Witness-Fact Sentences and then only at that point in a discourse requiring an emphatic assertion of belief in the truth or correctness of the statement being made. As yet, the relationship between discourse and the occurrence of these peripheral elements in a sentence has not been studied in depth so a full description must wait until such a study has been made. The specialized periphery tagmemes fall into three groups:

2.21 Tagmemes Restricted to Prenuclear Position.

These prenuclear tagmemes occur sentence initial only.

Topic. The topic tagmeme is usually a phrase marked with the usual direct object marker ke, and frequently employing the repeater tagmeme.

kakRi ke bole
cucumber OM also
'Regarding the cucumber...'

Setting. The setting tagmeme is usually a general time phrase and is obligatorily present when clauses of the Active set fill the bases of the Descriptive Listing Sentence. Setting optionally occurs in other sentence types. Some of the phrases which may fill this tagmeme include: rati m6:j6n 'night and day', aThara din rati m6j6n 'for eighteen days, both day and night', eble 'as yet', roj 'daily', boRe biane 'early in the morning'.

2.22 Tagmemes Restricted to Postnuclear Position.

This set of tagmemes may occur sentence final only.

Responsibility Disclaimer. The responsibility disclaimer tagmeme is filled by *m6ne* 'it is said'. Throughout narrative discourse *m6ne* closes each sentence and indicates that the story did not originate with the storyteller. In dialogue *m6ne* closes the sentence which is passing on secondhand information. The speaker disclaims all responsibility for the truth of his statement when he attaches *m6ne* to the end.

Afterthought. The afterthought tagmeme may consist of any clause level tagmeme and it occurs sentence final (and following *m6ne* when it occurs). The afterthought is used to clarify some part of the preceding sentence.

(IB 1)ja	sa:gun	des	(IB 2)bolla	(AFTH)*m6*-*ke*
go!	having told	give!	they said	I-OM

'They said, "Go and tell!" *to* *me*.'

2.23 Tagmemes Not Restricted in Relation to the Nucleus.

These tagmemes will occur within the body of the sentence.

Emphatic. The emphatic tagmeme is filled by *mant6r* '!', and it may occur only with the Contra-Expectation, Antithetical, Identity-Contrast, or Witness-Fact Sentences. *mant6r* occurs between the two bases of the sentence and applies to both. When this tagmeme occurs the truth of both bases is being asserted and the same two bases are being linked together as a definite unit.

Repeater. The repeater tagmeme is filled by *bole* 'also' and *pher* 'again'. *bole* and *pher* may occur separately or together and frequently are found to occur within the sentence bases.

janu. The *janu* morpheme occurs in many sentence types. Its function is unknown. *janu* may occur within the bases of the sentence.

to. The *to* morpheme occurs in many sentence types; however, here too the function is unknown. Like *janu* it may occur within the sentence bases.

Time Sequence. The time sequence tagmeme is filled by *pase* 'later'. It may occur in the sequence sentences where it intensifies the sequential relationship of the propositions. It may also occur in other sentence types where a time sequence may be relevant although not in focus.

Emphatic Focus. The emphatic focus tagmeme is filled by *ci*. It occurs with the part of the sentence base being emphasized or in focus.

3. *Semantic Structure Tree*.

The semantic structure tree (Figure 5) breaks down into six major nodes. The initial break is between chronological and non-chronological. Although cause-effect relationships involve temporal sequence in which cause must precede effect, it is only secondarily in focus. This may also be true of the other non-chronological sentence types. In chronological sentence types, either a simultaneous or a sequential temporal relationship is being focused upon.

Under the non-chronological node come the sub-divisions of cause-effect, disjunction, restatement, coupling, and complementation. Under cause-effect we include conditional, concessive, contrafactual, reason-result, and so forth.

By disjunction we mean alternation in which 'or' is the typical conjunction.

Restatement means that one proposition repeats, either in the same or different form, the initial proposition and may add further information or speaker expectancy.

Under coupling we have included the two relationships which can be characterized as, "A and B" and "A but B." "A and B" simply links two propositions together as a double assertion. "A but B" links two propositions together as a contrastive assertion.

Finally, complementation indicates that one proposition completes or complements the meaning of the other either by item identification and comment, by correlative relationship, or by complementation of such verbs as 'say', 'know', and 'see'.

The reader is also directed to the far lower right which lists the three grammatical divisions as layers into which the terminal points of the tree fall.

It is not surprising to find most cause-effect and chronological relationships encoding as subordinate type grammatical structures. Disjunction as expected encodes into coordinate type grammatical structures. Restatement is largely paratactic but has two sentence types which encode as subordinate structures (these, however, may be due to our definition of truncated and formulaic clauses as being dependent and may not be a real reflection of the true structure). Coupling which we would expect to encode into coordinate, largely encodes into paratactic. This fact demonstrates the tendency of Halbi to conjoin not so much by means of links as by parataxis or other means. Finally, complementation sentences which we would expect to encode into the subordinate grammatical structures encodes mainly into paratactic.

4. Grammatical Structure Tree.

The Halbi sentence structure tree (Figure 6) divides into three smaller trees termed: subordinate, paratactic, and coordinate. Each of these trees is considered to be in contrast with the other on the

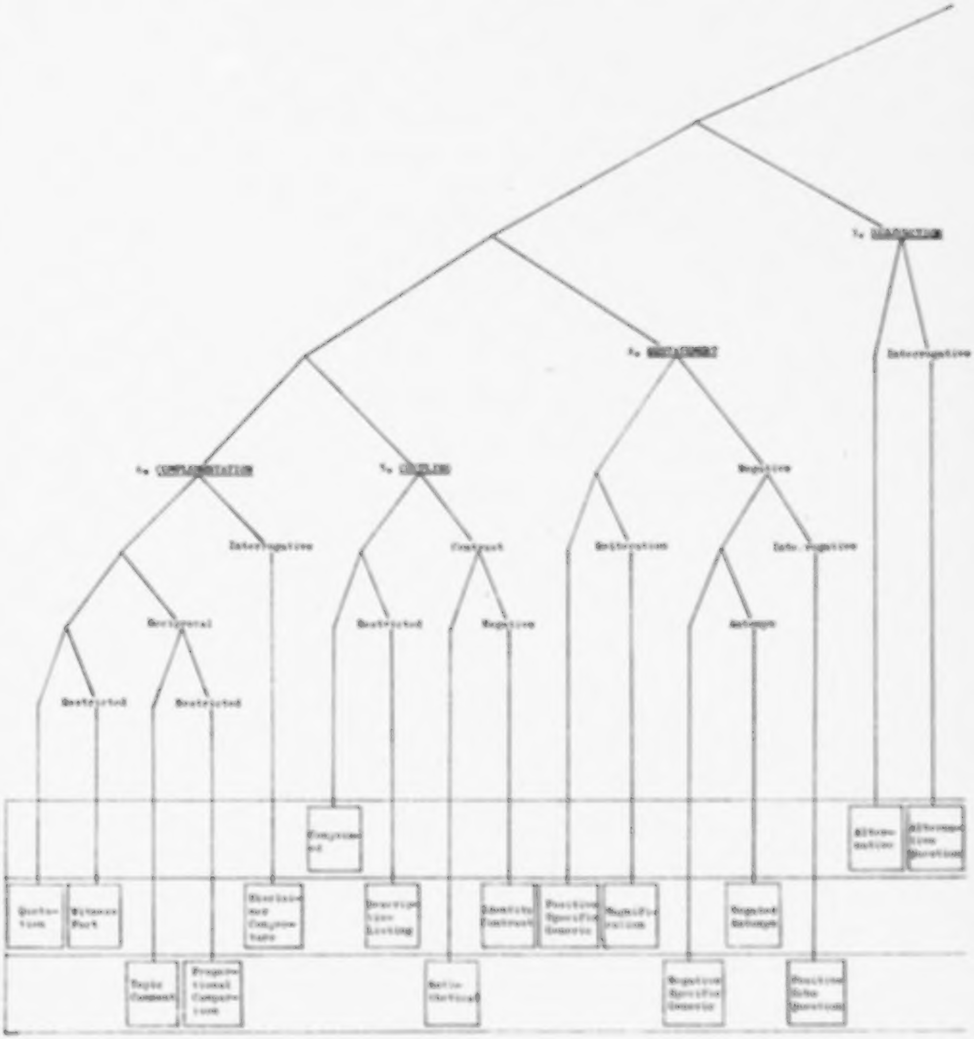
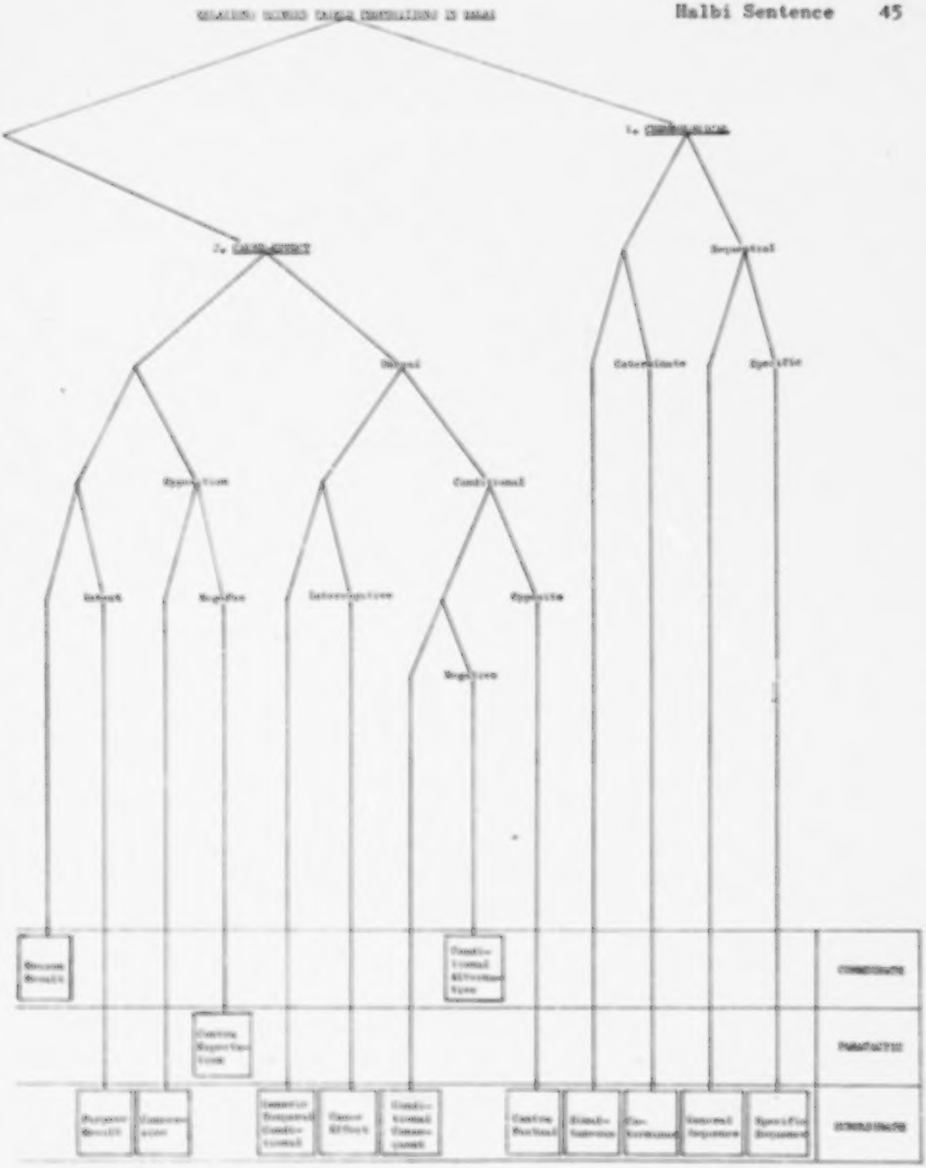


Figure 5. Semantic Structure Tree.


1. CHRONOLOGICAL
2. CAUSE-EFFECT
Sequential
Coterminate
Specific
Causal
Opposition
Conditional
Extent
Negative
Interrogative
Opposite
Negative
Reason Result
Conditional Alternative
Contra Expectation
Purpose Result
Concession
Generic Sequential Conditional
Cause Effect
Conditional Concession
Contra Factual
Simultaneous
Co-terminous
General Sequence
Specific Sequence
COORDINATE
PARATACTIC
SUBORDINATE

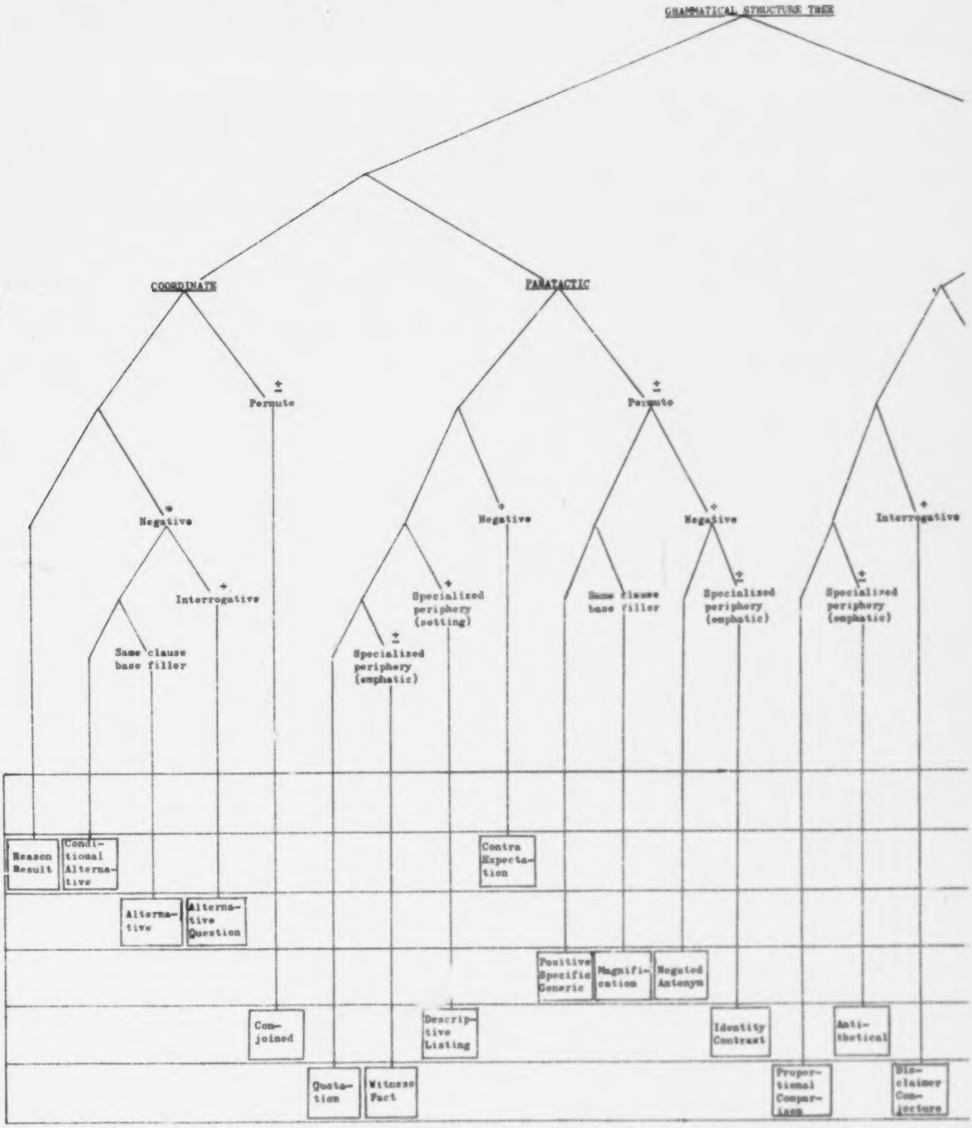
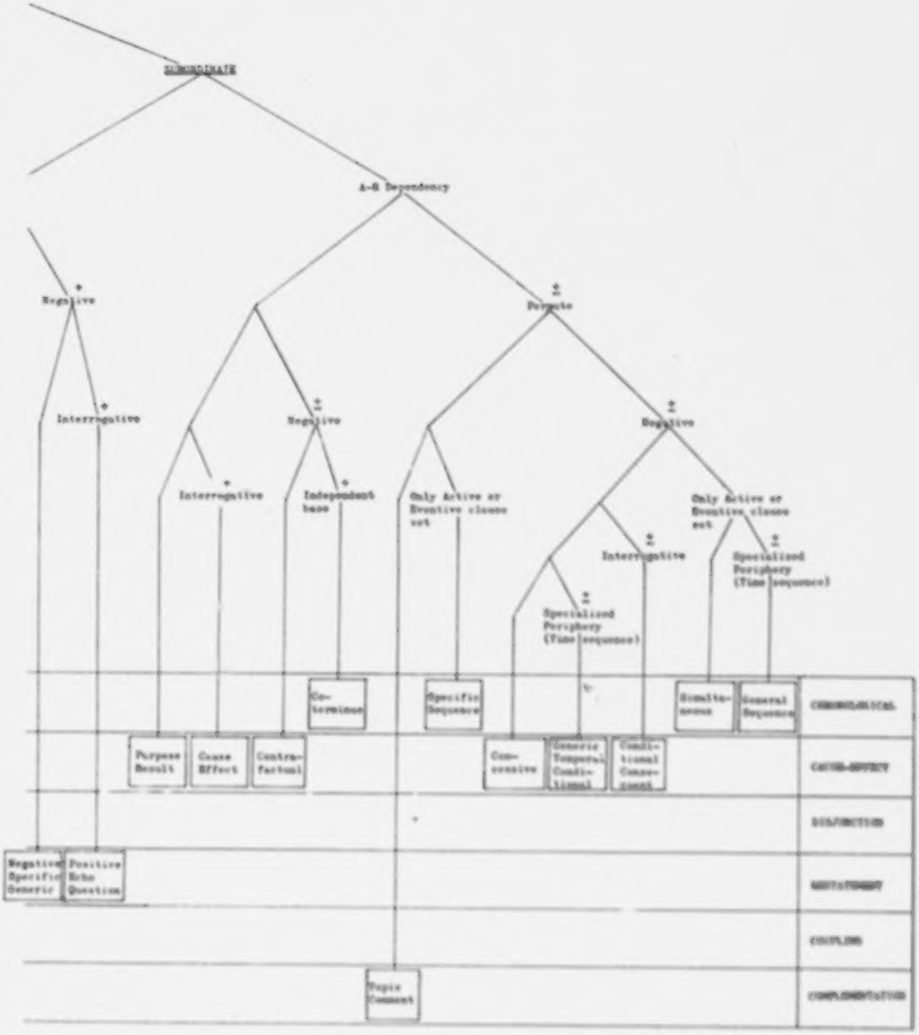


Figure 6. Grammatical Structure Tree.


SUBORDINATE
A-B Dependency
+ Negative
+ Interrogative
+ Interrogative
± Negative
+ Independent base
± Permute
Only Active or Eventive clause set
± Negative
± Interrogative
± Specialized Periphery (Time sequence)
Only Active or Eventive clause set
± Specialized Periphery (Time sequence)
Co-terminous
Specific Sequence
Simultaneous
General Sequence
Purpose Result
Cause Effect
Contra-factual
Con-cessive
Generic Temporal Conditional
Conditional Consequent
Negative Specific Generic
Positive Echo Question
Topic Comment
CHRONOLOGICAL
CAUSE-EFFECT
DISJUNCTION
RESTATEMENT
COUPLING
COMPLEMENTATION

following basis:

a) In the subordinate tree, sentences must have at least one dependent base.

b) In the paratactic tree, sentences must have only independent bases.

c) In the coordinate tree, sentences have independent bases joined by a link.

Each tree divides out to the various contrastive sentence types. Each node on the tree is a contrastive grammatical feature which sets individual sentences and sets of sentences off from one another. (Another contrastive feature is the distribution of each sentence within the grammatical heirarchy; however, this aspect of distribution has not been incorporated into the grammatical tree.) Some of the nodes are self explanatory while others need some explanation.

Subordinate Branch. *Optional permute* indicates that the bases of these sentences may be permuted without change in meaning. *Optional specialized periphery tagmeme, time sequence,* means that the form *pase* 'later' may optionally occur. *Independent base* indicates the obligatory presence of at least one independent base.

Paratactic Branch. *Optional specialized periphery tagmeme, emphatic,* indicates the optional occurrence of the form *mantór* '!'. *Same base fillers* means that both bases must have the same clause types. *Obligatory setting periphery* indicates the presence of some time phrase such as *rati mó:jón* 'night and day'.

Coordinate Branch. Disjunct is given as an antonym to conjunct and is characterized by the link 'or'.

The reader is also directed to the far lower right which lists the six major semenic divisions as layers into which the terminal points of the tree fall.

C. *Contrastive Sentence Types.*

At the time of writing, there have been found twenty-nine contrastive sentence types.[2] These twenty-nine sentences have been posited as a result of the contrastive features incorporated in the two sentence trees in the previous section. To facilitate description, the sentences are divided into six groups according to the six major nodes on the semantic structure tree. These groups then are: Chronological, Cause-effect, Disjunction, Coupling, Restatement, and Complementation.

The contrastive sentence type examples have been kept free from embedding for illustrative purposes. Embedding of one sentence within another is discussed in Section E. Distribution.

1. Chronological.

The chronological group of sentences consists of four basic types, all of which are subordinate in that they each have one dependent base. The dependency is based on the different axis-relator clauses which may fill this dependent base.

The relationship of the propositions of the chronological sentences may be summarized in the following tree diagram:

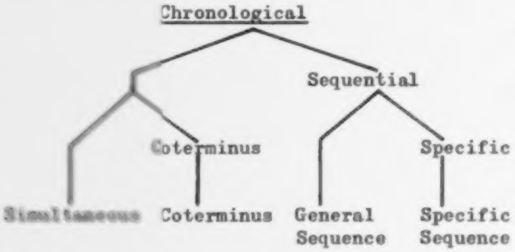


Figure 7. Chronological Branch.

1.1 Specific Sequence Sentence.

The Specific Sequence Sentence consists of at least one dependent base, with the possibility of a second, and one independent base. The dependent bases are filled by dependent clauses or axis-relator clauses while the independent base is filled by an independent clause.

Basic Sentence Formula:

+	DB 1	DepCjvCl A-RCl 7	±	DB 2	DepCjvCl	+	IB	IndCl
	Initial Prop of Temp Seq	complt action		Foll Prop of Temp Seq	complt action		Final Prop of Temp Seq	action

The propositions of the sentence are in a temporal sequential relationship in which a preceding action must be completed before a following action can begin. The propositions, in general, express a sequence of events in past or present time but they may also be expressed in projected time.

1) (DB)iskuT6r ne bosan (IB)6sp6tal ne neuat.
motorscooter on having caused to sit hospital to they will
take
'Having made them sit on the motorscooter they will take them
to the hospital.'

The dependent bases are filled by a Dependent Conjunctive Clause or by an Axis-Relator Clause 7. The Dependent Conjunctive Clause consists of Dependent Clause 4 from the Active or Eventive clause sets. The clause is unmarked for tense, person, mood, or voice. No verbal auxiliaries may occur. The suffix -un occurs on the verb and indicates a completive aspect. An optional word BATI[3] 'after' may also occur intensifying the fact of completion. The Subjects of the bases must be the same.

2) (DB)anun bati (IB)ado boRe boRe ke kaTtor ay.
having brought after half big big OM cutting it is
'After having brought (the fish to the house), half the big ones
are to be cut up.'

When more than one dependent clause occurs, both must be Dependent Conjunctive Clauses.

3) DB 1)hasun (DB 2)bhuklun (IB)goTheaesot.
having laughed having rejoiced they are conversing
'Having laughed and rejoiced they are talking together.'

4) (DB 1)sut ghenun (DB 2)anun bhati (IB)hun ke
thread having bought having brought after that OM
posea ne bhorun detor ay.
rice water in having filled giving it is
'Having purchased thread, after having brought it (home), it is
to be soaked in rice water.'

When the same clause is repeated in two dependent bases then an emphasis on degree or quantity is in focus. This feature is directly influenced by the semantic implications of the sentence. In the following example, for the sentence to be at all meaningful to the audience the dependent base must be duplicated.

5) (DB 1)leki gagun (DB)gagun (IB)ai:k kan cipRa
girl having cried having cried eye ear pus like stuff
dh6rli.
she took hold
'The girl, having bawled her eyes out, has caused her eyes and
ears to gum up.'

The Axis-Relator Clause 7 which may also fill the initial dependent base has Dependent Clause 3 from the Active or Eventive sets of clauses filling the axis. Dependent Clause 3 is expressed in perfect aspect and is unmarked for person and number. No verbal auxiliaries may occur. The relator is filled by *pase* 'later'. The dependent base when filled by this axis-relator clause may have the same or different subject in relation to the independent base.

6) (DB)kupa baːdlo pase (IB)miːDtor ay.
rice stack tied up later threshing it is
'Later, after the rice-stack is built, the rice is to be threshed.'

The independent base is filled by an independent clause from the Active or Eventive clause sets. This independent clause may be expressed in past, present, or projected time. Declarative mood is usual, though imperative or interrogative mood may occur. Psuedo-passive voice may also occur. The benefactive auxiliary *de* or the perfective auxiliary *ro* may occur. Negation does not occur in any base. The linear ordering of the sentence is, in general, as displayed in the four box array; however, permutation is allowed.

7) (DB)s6b masT6r nikrun bhati (IB)l6cman ke cheki
all teacher having come out after Laksman OM blocking

hola.
they became
'After all the teachers came out they stopped (blocked) Laksman.'

8) (DB)gay Dhilun (IB)c6rak neese.
cow having freed to cause to graze he is taking
'Having let the cattle out he is taking them out to graze.'

9) (DB 1)jaun bhati (DB 2)D6ːDik bisan (IB)khater
having gone after a little while having rested eating

ay.
it is
'After having gone (there), having rested awhile, (food) is to be eaten.'

10) (DB)bimar chaːDlo pase (IB)kukRi pila deter ay.
sickness healed later hen child giving it is
'Later, after healing, a chicken is to be given.'

1.2 General Sequence Sentence.

The General Sequence Sentence consists of a dependent and an independent base. The dependent base is filled by an axis-relator clause while the independent base is filled by an independent clause.

Basic Sentence Formula:

	DB	A-Rcl 1		IB	IndCl
+	Initial Prop of Temp Seq	past time	+	Final Prop of Temp Seq	projected time

The propositions of the sentence are in a temporal sequential relationship in which the initial proposition is generally considered to be complete before a following projected action is begun.

1) (DB)dhan Ghõrli ale (IB)biasi marter ay.
paddy rice it sprouted when a small plough hitting it is
'When the paddy has sprouted then it is to be ploughed with the biasi plough.'

The Axis-Relator Clause 1 which fills the dependent base of this sentence consists of an axis filled by an independent clause from the Active or Eventive clause sets. The idependent clause must be expressed in simple past tense. The relator is filled by ALE^{4} 'when'.

2) (DB)bai mán ila ale (IB)mo:y ee:de saigukilay.
lady pl. they came when I I will come in order to tell
'When the ladies come I will come in order to tell them.'

The independent base is filled by an independent clause from the Active or Eventive sets of clauses. The clause will be expressed in projected time. Pseudo-passive voice may occur as this usually has the sense of projected time. The Benefactive auxiliary de has been observed to occur.

3) (DB)pakli jale (IB)dhan kaTter ay.
it ripened when paddy rice cutting it is
'Once the paddy is ripe it is to be cut.'

The dependent base is not negateable but negation may occur in the independent base. The linear ordering of the bases is usually as displayed in the four box array, however, permutation may occur without any change in the sentence structure. The dependent base is frequently permuted to a position following the independent base in procedural type descriptions where it fills an afterthought tagmeme of the specialized periphery. Also the specialized periphery tagmemes, time sequence (pase 'later') and repeater (pher 'again'), occur frequently and add to the temporal focus of the sentence.

4) (DB)tun sowkar chuTi dile ale (IB)ghãre asut.
that richman leave he gave when house to they will come
'When the richman gives (them) leave they will come home.'

5) (DB)khub din holi jale (IB)ra:boti amke d6kuk suay.
many day it became when Ramboti we OM to see she will come
'When many days are passed Ramboti will come to see us.

6) (DB)pani marli ale (IB)dhan 6kruay.
water it hit when paddy rice it will sprout
'Once it has rained the paddy will sprout.'

7) (DB)leka boRe boRe baRlo jale (IB)bia k6rdebe.
boy big big he grew when wedding they will perform
'When the boy is grown big they will perform the wedding.'

8) (DB)hun log m6n ila ale (IB)s6b log khauat.
that people pl. they came when all people they will eat
'When those people come everyone will eat.'

9) (DB)hun m6n pej khadla ale (IB)ami bole pej khauau:.
that pl. gruel they ate when we also gruel we will eat
'When they eat gruel we also will eat gruel.'

10) (DB)leka hi:Dlo ale (IB)pase pher hun kes ke khi:Dik
boy he walked when later again that hair OM a little

khi:Dik bacator ay.
a little causing to leave it is
'When the boy walks then after that a little bit of his hair
is to be left to grow long.'

1.3 Co-terminus Sentence.

The Co-terminus Sentence consists of one dependent and one independent base. The dependent base is filled by an axis-relator clause while the independent base is filled by an independent clause.

Basic Sentence Formula:

+	DB	A-RCl 5	+	IB	IndCl
	Identity Prop			Co-terminal Prop	

The initial proposition of the sentence is an event whose terminus (end point) signals the terminus of the second proposition also. That is to say, the two propositions are in a coterminating relationship. While the beginning points of the two propositions can also be the same this is not required.

1) (DB)m6ke j6r rotle (IB)6cha ni lage.
I OM fever be until complete good not it feels
'I didn't feel good while I was feverish.'

In some sentences the two propositions are not only in a co-terminating relationship but they are also in a concurrent relationship as well—both beginning and ending together.

a) (DB)tin din phuni hott6le
three day full moon be while and until complete

(IB)nacuat.
they will dance
'They will dance for three days while the moon is full and until it's finished.'

The dependent base is filled by Axis-Relator Clause 5. The axis is filled by Dependent Clause 4 from the Active, Eventive, Stative, or Attributive sets of clauses, and is unmarked for tense, person, voice, mood, or aspect. No verbal auxiliaries have been observed. The relator is filled by -T6LE,[5] 'until completion' or -T6TLE,[6] 'during and until complete'. The dependent base is always stated positively.

3) (DB)ber ud6tle (IB)ami sou rou:.
sun rise until complete we having slept we were
'We had slept until the sun had risen.

The independent base is filled by an independent clause from the Active, Eventive, or Stative sets of clauses. The following aspect-tenses have been observed to occur: simple future, simple past, aorist, and present continuous. The benefactive auxiliary de or the perfective auxiliary ro may also occur. Psuedo-passive voice may occur, and the base may be negated. The linear ordering of the bases is as displayed and no permutation is allowed.

4) (DB)bai chut· ne rotle (IB)gh6re oluk
lady uncleanness in be until complete house in to enter

detor nu ay.
giving not it is
'As long as the lady is defiled she is not allowed inside the house.'

5) (DB)ami phik6r ne rotle (IB)gaguau:.
we sadness in be until complete we will cry
'We will cry as long as we are sad.'

6) (DB)doa m6co thane rotle (IB)dile.
medicine I of place in be until complete I gave
'I gave medicine until it was finished.'

7) (DB)bor6k 6mr6tle (IB)janu pej bhat
year arrive until complete part. gruel cooked rice

deuat.
they will give
'They will give rice and gruel until the arrival of the next year.'

8) (DB)tumco har hotle (IB)kheluaut.
you of failure be until complete we will play
'We will play until you lose.'

9) (DB)rani ke bia hotle (IB)kôhaɪy jauk ni
queen OM wedding be until complete wherever to go not

dila.
they gave
'They did not allow the queen to go anywhere until her marriage.'

10) DB)sor hottôle (IB)hun lôge rolu.
agreement be during and until complete that place at we were
'We were at that place while and until we reached agreement.'

11) (DB)idlo Deɪg hottôle (IB)laTa môn
this big height be during and until complete weed pl.

ruay.
it will be
'The weeds will be there while and until the paddy rice grows to be fairly big.'

1.4 Simultaneous Sentence.

The Simultaneous Sentence consists of one dependent and one independent base. The dependent base is filled by an axis-relater clause while the independent base is filled by an independent clause.

Basic Sentence Formula:

	DB	A-RCl 6 A-RCl 8		IB	IndCl
+	Temp Sett Prop	simult action	+	Concurrent Ev Prop	simult action

The propositions of the sentence are in a temporal relationship in which the second action takes place within the time span of the initial action (inclusive simultaneity) or concurrently (concurrent simultaneity) with it. Which of these two relationships is realized depends on the semantic context in focus. Example 1 shows one event occurring within the time span of the other, while example 2 shows the two in a concurrent relationship.

1) (DB)cegto bera (IB)deo m6n euat.
climbing time spirit pl. they will come
'During the time of taking possession, the spirits will come.'

2) (DB)ghòre olte bera (IB)usni boluat.
house in entering time like that they will say
'While entering the house they will talk like that.'

The dependent base is filled by Axis-Relator Clause 6 or 8. The occurrence of the Axis-Relator Clause 6 involves a sharp focus on the simultaneous beginnings and continuance of the initial and following actions. The axis is filled by Dependent Clause 2 from the Active or Eventive sets of clauses, and is marked for incomplete aspect only. The benefactive auxiliary de or the completive auxiliaries ja or sar may occur. The relator is filled by ke 'at.'

3) (DB)jhuma lagto ke (IB)ete euat.
tiredness sticking at coming they will come
'At the time of becoming tired they will come home quickly.'

The occurrence of Axis-Relator Clause 8 involves a general focus of simultaneity of the initial and following actions. The axis is filled by Dependent Clause 2, from the Active, or Eventive sets of clauses, and is expressed in imperfect aspect and unmarked for person or number. Also no verbal auxiliaries have been observed to occur. The relator is filled by bera 'time'.

4) (DB)porto bera (IB)to mo:y gh6s6rle.
running time part. I I fell
'While running I fell.'

The independent base may be filled by an independent clause from the Active or Eventive sets of clauses. The clause may be expressed in the following aspect-tenses: simple past, simple future, present perfect, present continuous, and aorist. Psuedo-passive voice may occur. The verbal auxiliaries de benefactive, ja completive, or ro perfective may also occur.

5) (DB)ghoRa l6ge 6sra 6sri k6rto ke (IB)goT6k pa:y ke
horse place in arrival performing at one foot OM

TuTan dili.
having broken off she gave
'At the time of arriving near the place of the horse she broke off a foot.'

6) (DB)dhan pakto ke (IB)moRgun jaese.
paddy rice ripening at having fallen it is going
'At the time of the paddy rice ripening, it is falling all over

the place.'

Negation rarely occurs with either base. The linear ordering of the bases is generally as displayed in the four box array, however, permutation is allowed. Specifically, the dependent base has been observed to interrupt the internal linear ordering of the independent base.

7) (DB)pani marto bera (IB)mi:jak jauat.
water hitting time to weed they will go
'During the time of the rains they will go to weed the fields.'

8) (DB)ba:wsi phukto ke (IB)e paT ili.
flute playing at this behind she came
'At the time of the playing of the flute, she came along this way.'

9) (DB)caur deto ke (IB)alu bole dilabe.
rice giving at potato also they gave
'At the time of giving rice, they also gave potatoes.'

10) (DB)16gin marto ke (IB)duno leka leki ke tel
joining of hands hitting at both boy girl OM oil

cegala.
they applied
'At the time of the joining of hands, they rubbed oil over the boy and girl.'

2. Cause-Effect.

The cause effect group of sentences consists of nine basic types. Of these, Contra-Expectation encodes grammatically as paratactic, Conditional-Alternative and Reason Result encode as coordinate, and the rest are subordinate.

The relationships of the propositions of the sentences may be summarized in tree diagram as in Figure 8.

2.1 Contra-factual Sentence.

The Contra-factual Sentence consists of two dependent bases. The first dependent base is filled by an axis-relator clause while the second dependent base is filled by a dependent clause.

The initial proposition of the sentence is a conditional ground which is stated as unfulfilled while the second proposition is the unfulfilled consequent of that condition. This means that, in actual fact, the opposite of each of the propositions is what occurred.

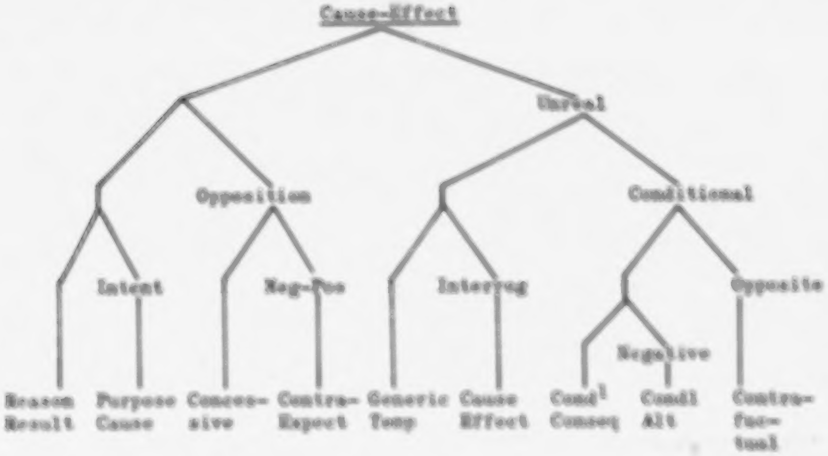


Figure 9. Cause-Effect Branch.

Basic Sentence Formula:

+ DB 1	A-RCl 9
Unfulfil Condn Prop	

+ DB 2	DepCl 1
Unfulfil Conseq Prop	

1) (DB 1) mocy ni ete jele (DB 2)mortie.
I not I would come if you would die
'If I hadn't come you would have died.'

This example actually means: 'I came so you didn't die.'

DBase 1 is dependent as a result of the axis-relator clause which fills it while DBase 2 is dependent in that it is marked for imperfect aspect and requires the rest of the sentence to complete its meaning. Together these two dependent bases produce an independent sentence.

DBase 1 is filled by Axis-Relator Clause 9. The axis is filled by Dependent Clause 1 from the Active, Eventive, Stative, or Attributive clause sets. The clause is always expressed in imperfect aspect and marked for person and number. The perfective auxiliary ro may occur. The relator is filled by ALE.

2) (DB 1)boRe dary uTtu ale (DB 2)ami dhan ha:Dun
big time we would arise if we paddy rice having
deta.
husked we would give
'If we would've arisen early we would've husked rice.'

DBase 2 is filled by Dependent Clause 1 from the Active or Eventive clause sets. This clause is always expressed in imperfect aspect and marked for person and number.

3) (DB 1)tumi bhaTpal ni etas ale (DB 2)jhõpke hálbi ni
you Bhatpal not you would come if quickly Halbi not
siktas.
you would learn
'If you wouldn't have come to Bhatpal you wouldn't have learned Halbi quickly.'

Negation may occur on either base, both bases, or not at all except when an Eventive clause fills DBase 2. When an Eventive clause fills DBase 2 then negation must occur on both bases or not at all. The linear ordering of the bases is as displayed in the four box array.

4) (DB 1)hun ogay rata ale (DB 2)hun ke biskuT
that quietness he would be if that OM biscuit
deta.
I would give
'If he would've been quiet I would've given him a biscuit.'

5) (DB 1)ami aji bihane boRe dary uTtu ale (DB 2)boRe
we today morning in big time we would arise if big
dary jhaTi gaRa netu
time type of cart escort we would take
'If we would've arisen early this morning we would've taken the jhaTi cart early.'

6) (DB 1)ami aji puj bera jhõpke khan rotu ale
we today great time quickly having eaten we would be if
(DB 2)jhari pokah jatu.
fishnet to throw out we would go
'If we would've eaten quickly we would've gone to net fish.'

7) (DB 1)hun mán sewa kérub jata ale (DB 2)hoti.
that pl. worship to perform they would go if it would be
'If they would've gone to do worship it would've been good.'

8) (DB 1)ra:boti d6kuk eti ale (DB 2)hoti
Ramboti to see she would come if it would be
'If Ramboti would've come to see (us) it would've been good.'

9) (DB 1)babu ke d6ktu ale (DB 2)hoti
Babu OM we would see if it would be
'If we would've seen Babu it would've been good.'

10) (DB 1)tui boRe biti dh6rtis ale (DB 2)hoti.
you big thing you would take hold if it would be
'If you would've gotten a big one (fish) it would've been good.'

2.2 Conditional-Alternative Sentence.

The Conditional-Alternative Sentence consists of two independent bases joined by a contra-conditional conjunction. The independent bases are filled by independent clauses.

Basic Sentence Formula:

	IB 1	IndCl		LK	Cj ' nahle		IB 2	IndCl
+	Choice 1 Prop		+	Contr Condl Pivot	'other- wise'	+	Choice 2 Prop	

The propositions of the sentence are in an alternating relationship with the contra-conditional pivot making the first proposition the negative condition of the second.

The independent bases are filled by independent clauses from the Active or Eventive clause sets. Simple future tense may occur with simple future; imperative mood and psuedo-passive voice may occur. No verbal auxiliaries have been observed.

1) (IB 1)poysa dh6ruat (LK)nahle (IB 2)6ysa dam6R
money they will take otherwise much tar

chicuat.
they will wipe over
'They will take money otherwise they will wipe tar over everything.'

2) (IB 1)aj le Dhaka borha: ke (LK)nahle (IB 2)ami maruau:.
today from cover! pig OM otherwise we we will hit
'Shut up the pig from today otherwise we'll beat it.'

When the same predicate occurs in both bases then the first predicate may be deleted. Also, the specialized periphery tagmeme, Topic, may occur with this sentence as shown in the following example:

3) (STOP)kakRi ke bole (IB1)paklo biti ke am6T (LK)nahle
cucumber OM also ripened thing OM curry type otherwise

(IB 2)sag sagi ra:dtor ay.
curry type preparing it is
'Regarding the cucumber, the ripened cucumber is prepared as am6T curry otherwise it is prepared as sag sagi curry.'

Negation does not occur on either base. The linear ordering is as displayed in the four box array and no permutation is allowed. A specific sequence of events is obviously intended which limits the possibility of permutation. Apparently, the best choice, in the mind of the speaker, is given first.'

4) (IB1)k6ra (LK)nahle (IB 2)mora.
do! otherwise die!
'Do or die!'

The specialized periphery tagmeme, Afterthought, has also been observed to occur as shown in the following example:

5) (IB 1)hun thane chak6k mo:d anuat (LK)nahle
that place at one leaf cup wine they will bring otherwise

(IB 2)pona pani hun thane deuat (APTH)juhlo
sacred water that place at they will give gathered

log ke.
people OM
'At that place they will bring a cup of wine otherwise at that place they will give sacred water to the gathered people.'

2.3 Conditional-Consequent Sentence.

The Conditional-Consequent Sentence consists of one dependent and one independent base. The dependent base is filled by an axis-relator clause while the independent base is filled by an independent clause.

Basic Sentence Formula:

+	DB	A-RCl 1	+	IB	IndCl
	Condl Ground Prop			Conseq Prop	

The initial proposition forms the grounds against which the subsequent proposition will or can be realized.

1) (DB)tui ni gelisis jale (IB)mo:y ee:de.
you not you have gone if I I will come
'If you haven't gone I'll come.'

The dependent base is filled by Axis-Relator Clause 1. The axis is filled by an independent clause from the Active, Eventive, or Stative sets of clauses. The relator is filled by *ALE*. The clause is expressible in a number of different aspect-tenses: simple past, present continuous, present perfect, aorist, and simple future. The imperative or interrogative mood do not occur and no verbal auxiliaries have been observed. The dependent base is dependent as a result of the axis-relator clause which fills it.

2) (DB)6cha silema ase jale (IB)jau:de.
good movie it is if we will go
'If there's a good movie on we'll go.'

The independent base is filled by an independent clause from the Active, Eventive, or Stative sets of clauses. The aspect-tenses which may occur in the independent base are: simple future, aorist, and present continuous. Interrogative or imperative mood may occur.

3) (DB)tumi ni ias jale (IB)mo:y e thane kay kaje
you not you come if I this place in what for

rua:yta?
I will stay
'If you don't come why should I stay here?'

4) (DB)D6slo biti ke bas dh6rlise ale (IB)pokan
burnt thing OM smell it has taken hold if having thrown out

dias.
give!
'If the burnt thing has become smelly toss it out.'

The benefactive auxiliary *de* and the completive auxiliary *ja* may occur in the independent base.

5) (DB)tumi jiu ke ni sa:glas jale (IB)mo:y ucki houn
you heart OM not you told if I strangle having become

jae:de.
I will go
'If you don't tell me where your heart is I'll go hang myself.'

Negation may occur on either base, both bases or not at all. The linear ordering of the bases is as displayed in the four box array but permutation is allowed.

6) (DB)bokRa ke ni dh6ras jale (IB)haT ne biku:de.
goat OM not you take hold if market in we will sell
'If you don't take the goat we will sell it in the market.'

7) (DB)mo:y hutay a:y ale (IB)ni ee:.
I there I am if not I come
'If I'm to be in that place I won't come.'

8) (DB)tui jase jale (IB)mo:y bole ee:de.
you you will go if I also I will come
'If you will go I also will come.'

2.4 Cause-Effect Sentence.

The Cause-Effect Sentence consists of one dependent and one independent base. The dependent base is filled by an axis-relator clause or a dependent clause. The independent base is filled by an independent clause.

Basic Sentence Formula:

	DB	DepCjvCl A-RCl 2		IB	IndCl
+	Queried	interrog	+	Desired	
	Cause	mood		Effect	
	Prop			Prop	

The initial proposition is an interrogative generic cause questioning what can be performed to bring about the desired effect proposition.

1) (DB)k6s6n k6run (IB)cha:Dauaybe?
what having performed he will cause to heal
'What's he to do to make it heal?'

Axis-Relator Clause 2 or the Dependent Conjunctive Clause may fill the dependent base. When the Dependent Conjunctive Clause occurs then the bases must have the same Subject. The Dependent Conjunctive Clause always contains the generic question word k6s6n 'what?', the generic pro-verb k6r, 'perform' and is expressed in the interrogative mood. The dependent base is dependent as a result of the axis-relator clause and the dependent clause which may fill it. The interrogative mood of the dependent base then extends over the entire sentence.

2) (DB)k6s6n k6run (IB)k6man khau:de?
what having performed harvest we will eat
'What's to be done for us to be able to live?'

The axis of Axis-Relator Clause 2 is filled by Dependent Clause 4 which like the Dependent Conjunctive Clause always contains the generic question word k6s6n 'what?', the generic pro-verb k6r 'perform' and is expressed in interrogative mood. The relator is filled by -LENE.[7] The Subjects of the bases may be the same or different.

3) (DB)hun ke k6s6n k6s6n k6rle (IB)anuk huay?
that OM what what when perform to bring it will be
'What's to be done so that I can bring it?'

The independent base is filled by an independent clause from the Active or Eventive clause sets. The clause is expressed in simple future tense or psuedo-passive voice. No verbal auxiliaries have been observed. Negation does not occur on any base. The linear ordering of the bases is as displayed in the four box array and no permutation is allowed.

4) (DB)k6s6n k6run (IB)utrua:ybe?
what having performed I will descend
'What am I to do so that I can descend?'

5) (DB)k6s6n k6run (IB)jiuau:be?
what having performed we will live
'What are we to do so that we can survive?'

6) (DB)k6s6n k6rle (IB)cha:Duaybe?
what when perform it will heal
'What's to be done so that it will heal?'

7) (DB)hun g6Rur ke janu k6s6n k6rle (IB)mari hoede?
that crocodile OM part. what when perform hit it will be
'What's to be done to the crocodile so that I can kill it?'

2.5 Generic Temporal-Conditional Sentence.

The Generic Temporal-Conditional Sentence consists of one dependent and one independent base. The dependent base is filled by an axis-relator clause while the independent base is filled by an independent clause.

Basic Sentence Formula:

	DB	A-RCl 2		IB	IndCl
+	Generic Condn Prop	state	+	Generic Conseq Prop	

The propositions of the sentence are in a generic condition-consequent relationship which posits a general rule or maxim. The initial proposition is a general condition whose expected general consequent, result, or response is stated in the second proposition.

1) (DB)s6Ti k6rle (IB)noni ke naw sa:gauat.
naming ceremony when perform Noni OM name they will cause to

tell
'When the naming ceremony is observed then Noni's name will be told.'

The dependent base is filled by Axis-Relator Clause 2. The axis is filled by Dependent Clause 4 from the Active, Eventive, Stative, or Attributive sets of clauses. The clause is not marked for tense, aspect, mood, or voice. The perfective auxiliary *ro* or the benefactive auxiliary *de* may occur. The relator is filled by a suffix *-LENE*.

2) (DB)beTa hole (IB)bap co th6r ay
son when be father of a relationship term he is
'When a son is born, he is the father's *th6r*.

The independent base is filled by an independent clause from the Active or Attributive clause sets. Generally, when simple future *-UAY* occurs in the independent base (as in examples 3 and 4) the speaker is referring to people or things other than himself, his own sex, his family, or caste. In the following example the speaker was of a caste different to the caste of the people who are the subject of the bases.

3) (DB)hun m6n bhat khadle (IB)amke bole bhat
that pl. cooked rice when eat we OM also cooked rice

deuat.
they will give
'When they eat rice, they give us rice.'

In the following example, the speaker was a man referring to something applying only to women.

4) (DB)k6sa ni dilene (IB)hun chut ne
purification ceremony not when give that defilement in

ruat.
they will be
'When the *k6sa* purification ceremony is not performed the woman remains defiled.'

When psuedo-passive voice occurs in this sentence type (as in examples 5-8) it is inclusive and reflexive and indicates that the sentence applies to the speaker, his sex, his family, or may extend to include his village or caste.

5) (DB)6sni kai: jai: caur cun bokRa kukRa hajle (IB)deo
like this everything rice goat fowl when lost spirit

bosator ay.
causing to sit it is
'It's like this when anything--such as rice, goats, fowl—is lost, the spirits are to be consulted.'

6) (DB)bihRa sórli bolle (IB)pher mi:jak murestor
plough type it finished when said again to weed beginning

ay.
it is
'When it's said, "The bihRa ploughing is finished," then the weeding is to begin.'

7) (DB)bhorli bolle (IB)ba:dun detor ay.
it filled when said having tied giving it is
'When it's said, "It's filled," then it is to be tied up.'

8) (DB)da:dór bhitre olla bolle (IB)jator ay.
fishtrap inside they entered when said going it is
'When it's said, "The fish entered the trap," one is to go (to get them).'

Negation may occur on either base, both bases, or not at all. The linear ordering of the bases, in general, is as displayed in the four box array but permutation is allowed. The benefactive auxiliary de may occur in the independent base.

9) (DB)dia dóhale (IB)ha:Di chia:uat.
oil lamp when show water pot they will touch
'When the oil lamp ceremony is observed (for purification) they will be able to touch the water pots.'

10) (DB)dhan ka:Duk ni role (IB)soutor ci ay.
paddy rice to husk not when be sleeping just it is
'When there's no paddy to be husked then one can sleep a little longer (in the mornings).'

11) (DB)e baTe duka suka holene (IB)sirha anuat.
this way in pain and sickness when be shaman they will bring
'In this country when someone is ill they will bring the shaman.'

12) (DB)naclene (IB)caur dhan detor ay.
when dance rice paddy rice giving it is
'When they dance, rice and paddy is to be given (to the dancers).'

13) (DB)pej bera holi bolle (IB)pej khator ay.
gruel time it became when said gruel eating it is
'When it's said, "It's become lunchtime," then gruel is to be eaten.'

14) (DB)dhan 6k6rli bolle (IB)pher bihRa martor
paddy rice it sprouted when said again plough type hitting

ay.
it is
'When it's said, "The paddy has sprouted," then the bihRa
plough is to be ploughed with.'

2.6 Contra-Expectation Sentence.

The Contra-Expectation Sentence consists of two independent bases. The bases are filled by independent clauses.

Basic Sentence Formula:

	IB 1	IndCl		IB 2	IndCl(red.)
+	Expect Prop	pos	+	Contr Expect Prop	neg

The two propositions are in a cause-negated effect relationship. The initial proposition arouses an expectation, the fulfillment of which is denied or negated by the second proposition. As a result, the second proposition is always negated while the initial one never is.

The bases are filled by independent clauses from the Active or Eventive clause sets.

In general, fairly close ties occur across the bases. Some of these ties may be as follows:

a) The same Subject in each base.

1) (IB 1)hun m6n boRe da:y j6gd6lpur gela (IB 2)najun
that pl. big time Jagdalpur they went not yet

6m6rla.
they arrived
'They went early to Jagdalpur but they haven't arrived yet.'

b) The Object of IBase 1 becomes the Subject of IBase 2.

2) (IB 1)tum ke kon din6t le sikae:se (IB 2)ni sikas.
you OM which many days from I am teaching not you learn
'For how many days I am teaching you but you don't learn.'

c) The Subject of IBase 1 becomes the Referent of IBase 2.

3) (IB 1)tumco beTi n6:g6t holise (IB 2)gor6s ni hoe.
you of daughter good she has become milk not it becomes
'Your daughter has given birth but her milk hasn't come.'

d) The Predicate in IBase 1 may be the causative form of a verb while the Predicate in IPase 2 is the non-causative form of the same verb.'

4) (IB 1)khub din mo:y khoale gay ke (IB)ni khadli.
many day I I fed cow OM not it ate
'For many days I fed the cow but she didn't eat.'

e) The IBase 2 is frequently reduced to only the free form negative *ni* plus the predicate.

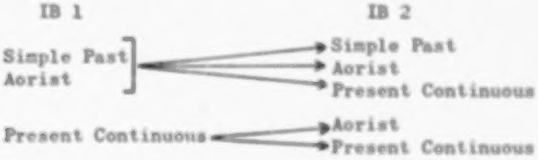
5) (IB 1)gh6n gh6n aig D6bi dh6rale (IB 2)ni dh6re.
again and again fire match I lighted not it lights
'Again and again I struck the match but it didn't light.'

f) The optional occurrence of the emphatic tagmeme, *mant6r*, from the specialized periphery.

6) (IB 1)baba bita pila ke poRalo (EMPH)mant6r
father thing child OM he caused to read emph.

(IB 2)kh6Tke ni poRe.
absolutely not he reads
'The father taught reading to the boy but he just doesn't read.'

The following aspect-tense co-occurrences across the bases have been observed:



The auxiliary *ne* and the perfective auxiliary *ro* may both occur. The linear ordering of the bases is as displayed in the four box array. No permutation is allowed.

2.7 *Concessive Sentence*.

The Concessive Sentence consists of one dependent and one independent base. The dependent base is filled by an axis-relator clause and the independent base is filled by an independent clause.

Basic Sentence Formula:

	DB	A-RCl 4		IB	IndCl
+	Conc Prop	past & current time	+	Contr Expect Prop	past & current time

The two propositions are in a cause-inverse effect relationship. The initial proposition of the sentence is a concessive circumstance whose expected outcome is not fulfilled. This makes the second proposition function as a contrary-to-expectation proposition.

1) (DB)bhuk poRli ale bole (IB)ami kebi bhuke ni so6lu.
hunger it fell although we when hunger in not we slept
'Although there was a famine, we never went to sleep hungry.'

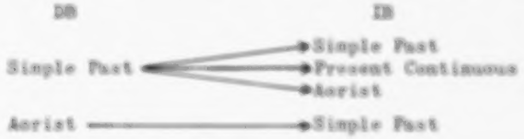
The dependent base is filled by Axis-Relator Clause 4. The axis is filled by an independent clause from the Active, Eventive, or Stative clause sets. The clause may be expressed in the following aspect-tenses: simple past, present continuous, and aorist. No verbal auxiliaries have been observed. The relator is filled by *ale bole* 'although'.

2) (DB)nani 6s6n mo:Dhi holi ale bole (IB)khub log ju6la.
small like this fair it became although much people they
gathered.
'Although it was a small fair many people gathered.

ale may be optionally deleted when aorist tense occurs on the verb *rouk* 'to be' in the dependent base.

3) (DB)cua: ne kóm pani roe bole (IB)khub log ke phurli.
well in less water it was although much people OM it sufficed
'Although there was little water in the well it sufficed many people.'

The independent base is filled by an independent clause from the Active or Eventive clause sets. There are some tense co-occurrence restrictions across the bases. The tenses which may co-occur are:



No verbal auxiliaries have been observed. Negation may occur on either base but not both. The linear ordering is as displayed in the four box array but some permutation is allowed. However, this permutation is restricted and as yet it is not known what these restrictions are.

4) (DB)rani baTe khi:Dik kôm log hola ale bole
queen way in a little less people they became although

(IB)beyragi baba baTe khub log jaesot.
holyman father way in much people they are going
'Although less people are with the queen, many people are going to the holyman.'

5) (DB)pani ni ay ale bole (IB)ami nahlu.
water not it is although we we bathed
'Although there was no water we bathed.'

6) (DB)jômay naT ke jitla ale bole (IB)khetri kumar
all dance drama OM they surpassed although a dance drama

aur jôymôni bharôt naT ke ni jitot.
and a dance drama dance drama OM not they surpass
'Although they surpass all the dance dramas they don't surpass the Khetri Kumar and Jaymani Bharat dramas.'

7) (DB)leka môn bai ke hôlbi sikala ale bole (IB)bai ni ci
boy pl. Bai OM Halbi they taught although Bai not just

sikli.
she learnt
'Although the boys taught Halbi to Bai, she just didn't learn.'

2.8 Purpose- Result Sentence.

The Purpose- Result Sentence consists of a dependent and an independent base. The dependent base is filled by an axis-relator clause and the independent base is filled by an independent clause.

Basic Sentence Formula:

+	DB	A-RCl 3	+	IB	IndCl
	Purpose Prop	intention		Result Prop	

Semantically the propositions are in a cause-effect relationship in which the purpose stands as the cause of the action of the result proposition. Note that purpose always implies intention (noted in box 3) and that this intention or forethought stands as the cause of the resulting action.

1) (DB)h6lbi sikato kaje (IB)m6ke tui mol chiRan
Halbi teaching for I OM you price having agreed upon

anlis.
you brought
'Having agreed on a wage you brought me here for the purpose of teaching Halbi.'

The dependent base is filled by Axis-Relator Clause 3. The axis is filled by Dependent Clause 2 from the Active set of Clauses. The clause is expressed in imperfect aspect and is unmarked for person or number. No verbal auxiliaries have been observed to occur. Generally, the clause is reduced to its minimal form and the Subject is deleted. The Subject of both bases will be either the same or the Subject of the dependent base will be the Object of the independent base. The relator is filled by kaje 'for'. In example 2, the same Subject occurs in both bases while in example 3, the Subject of one base becomes the Object of the other.

2) (DB)pan TuTato kaje (IB)ran jauat.
leaf picking for forest they will go
'They will go to the forest for picking leaves.'

3) (DB)nacto kaje (IB)hun thano bhopal co boRe sah6b
dancing for that place of Bhopal of big official

hag dilose.
he has called
'The important official from Bhopal has called (the boys) to come and dance.'

The independent base is filled by an independent clause from the Active set of clauses. The clause may be expressed in past, present, or projected time. Psuedo-passive voice may occur. No verbal auxiliaries have been observed.

Negation does not occur on either base. The linear ordering of the sentence bases is, in general, as displayed in the four box array but permutation is allowed. Also, the dependent base may interrupt the internal linear ordering of the independent base, as in example 4.

4) (IB)huta ba:w6s (DB)phoRki monato kaje (IB cont.)anlase.
there bamboo fence making for they have brought
'For making a fence they have brought bamboo.'

5) (IB)6sni lai c6na kera deuat (DB)khato
like this puffed rice channa banana they will give eating

kaje.
for
'They will give puffed rice, channa, and bananas like this for

the purpose of eating.'

2.9 Reason-Result Sentence.

The Reason-Result Sentence consists of two independent bases joined by a reason-result conjunction. The bases are filled by independent clauses.

Basic Sentence Formula:

+	IB 1	Ind Cl	+	LK	Cj ' GUNE tebe	+	IB 2	IndCl
	Reason Prop			Rsn Rslt Piv	'therefore'		Result Prop	

The initial proposition of the sentence is given as the reason or basis for the resulting proposition which follows.

1) (IB 1)ndke anuk jau rola (LK)gune (IB 2)moiy
I OM to bring having gone they were therefore I

ile.
I came
'They had come to get me so I came.'

IBase 1 is filled by an independent clause from the Active or Attributive sets of clauses. IBase 2 is filled by an independent clause from the Active, Eventive, or Stative sets of clauses. The clauses which fill the bases do not have to be of the same emic type. Also Active clauses may co-occur with Stative clauses. Co-occurrence restrictions appear to be imposed by semantic (situational) constraints.

2) (IB 1)ami kórea log asi (LK)gunuk (IB 2)amke dyea ni
we dark people we are therefore we OM much not

dékhet.
they look
'We are dark-skinned people therefore they don't stare at us.'

3) (IB 1)mahla aunt (LK)gune (IB 2)laj laje
bethrothal they will come therefore shyness for

haT geli.
market she went
'They will come for the betrothal so she went to the market because she was shy.'

The tense co-occurrence restrictions which usually apply in the Conjoined Sentence and others, do not apply in this particular sentence. A temporal sequence is not in focus so IBase 1 may be projected time while IBase 2 may be past time.

4) (IB 1)moy khub caur khaumy (LK)gunuk (IB 2)móke-bai món.
I much rice I will eat therefore I OM lady pl.

khub caur dhórum dila.
much rice having gotten they gave
'I will eat lots of rice therefore the ladies got me lots of rice.'

Imperative mood or psuedo-passive voice do not occur in IBase 1 but may occur in IBase 2. The following example illustrates psuedo-passive voice.

5) (IB 1)sian log món at (LK)tebe (IB 2)hun món.
old person people pl. they are therefore that pl.

ke naw ni dhórtor ay.
OM name not taking hold of it is
'They are old people therefore you must not say their names.'

The perfective auxiliary *ro* or the benefactive auxiliary *de* may occur in either base. Either base may be negated but not both. The linear ordering of the sentence is as displayed in the four box array and no permutation is allowed.

6) (IB 1)tunco dehe: pa:Dri ay (LK)gune (IB 2)óysa dékuat.
you of flesh white it is therefore much they will

look
'Your skin is white therefore they will stare at you.'

The reason-result pivot *GUNE* has two forms: *gune* and *gunuk*. *gune* is used by men while women may use both *gune* and *gunuk*. The *tebe* pivot seems to occur if the speaker is relating something he himself witnessed while *GUNE* is used for secondhand information.

7) (IB 1)ami jóyphur co hoTél thane bhat khadlu (LK)gune
we Jeypur of hotel place in cooked rice we ate therefore

(IB 2)amke hun bita món óysa dékat.
we OM that thing pl. much they look
'We ate lunch at a hotel in Jeypur therefore many men stared at us.'

8) (IB 1)e leka co tual jhiku rohot (LK) gune
this boy of towel having snatched they were therefore

(IB 2)e ci kirta Thebu rou:.
this just reason having stayed we were
'They had snatched the boy's towel therefore for this very
reason we had stayed.'

3. Disjunction.

The disjunction group of sentences consists of two basic types and both of these are coordinate. In the Alternative Question Sentence the second base is dependent (having a formulaic clause filler) but because of the link it is being retained in the coordinate group.

The relationships between the propositions of the sentences may be summarized in the following tree diagram:

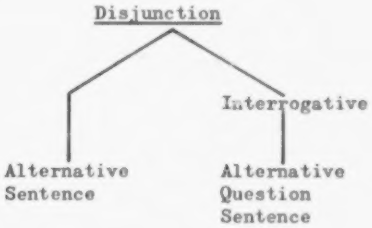


Figure 9. Disjunction Branch.

3.1 Alternative Question Sentence.

The Alternative Question Sentence consists of one independent and one dependent base joined by an alternating link. The independent base is filled by an independent clause; the dependent base is filled by a dependent clause; and the link by a conjunction ki/kay 'or'.

Basic Sentence Formula:

+	IB	IndCl	+	LK	Cj	ki, kay	+	DB	FormCl 1 DepCl 7
	Altv Prop	pos interrog		Alt Piv		'or'		Altv Prop	neg/generic interrog

Semantically the two propositions are in an alternating relationship in which they are reciprocally offered as choices to each other. In subtype 3.11, the choice is between the positive and negative of proposition one. In subtype 3.12, the choice is between proposition one and the generic interrogative 'what'.

The independent base is filled by independent clauses from the

Active, Eventive, Stative, or Attributive sets of clauses. The clauses from the Active and Eventive set are expressible in the following aspect-tenses: simple past, simple future, or present continuous. The clauses from the Stative and Attributive sets are not expressible in reference to time. The psuedo-passive voice may occur but no other verbal auxiliary has been observed. The sentence as a whole is interrogative, and carries a distinctive question intonation pattern.

The dependent base may be filled by Formulaic Clause 1 or Dependent Clause 7. The dependency of the base is a result of these fillers. Also the occurrence of either Formulaic Clause 1 or Dependent Clause 7 divides the sentence into two subtypes.

3.11 Alternative Question Subtype 1.

The propositions of this subtype are in a negative alternating relationship in which the initial proposition is always positive while the final proposition is always negative. A response is required from the the audience either as a negation or an affirmation of the speaker's initial proposition.

Formulaic Clause 1 filling the dependent base has two structural possibilities and is always negative:

a) nai 'not is'. This will occur when clauses from the Attributive and Stative clause sets fill the independent base. This is a predicate consisting of a bound negative n- plus a form of the verb AY 'to be'.

1) (IB)bai ghóre ase (LK)ki (DB)nai?
Bai house in she is or not is
'Is Bai in the house or not?'

2) (IB)miri cor ay (LK)ki (DB)nai?
Miri thief he is or not is
'Is Miri a thief or not?'

b) NAJUN 'not yet'. This will occur when clauses from the Active and Eventive clause sets fill the independent base. There are two forms possible: najun which is a bound negative na- plus jun '?' and is used by men; nai which is a bound negative n- plus a form of the verb AY 'to be' and is used by women.

3) (IB)leka món hun baT le ila (LK)ki (DB)najun?
boy pl. that way from they came or not yet
'Did the boys come from that place yet or not?'

4) (IB)beTsi aɪg dholi (LK)kay (DB)najun?
Betay body she washed or not yet
'Has Betay given birth yet or not?'

5) (IB)tui pani anlis (LK)ki (DB)najun?
you water you brought or not yet
'Did you bring water yet or not?'

3.12 Alternative Question Subtype 2.

The initial proposition queries whether that same proposition is true or occurred; the final proposition queries what is true or what action took place if the initial proposition isn't true or didn't occur. A response is required from the audience in the form of a statement or explanation.

The dependent base is filled by Dependent Clause 7 from the Active or Eventive clause sets and is in the interrogative mood. See example 4 below. This clause is usually truncated to only the question word kósón 'what' and as a result is dependent. There is no overt negative in either base.

1) (IB)amco goT khub Dó:D hoese (LK)kay (DB)kósón?
we of language much difficulty it is becoming or what
'Is our language giving you difficulties or what?'

2) (IB)tuco gaɪw sób le boRo ay (LK)ki (DB)kósón?
you of village all from big it is or what
'Is your village bigger than all others or what?'

3) (IB)tuco des sób des le boRo ay (LK)kay (DB)kósón?
you of country all country from big it is or what
'Is your country larger than all other countries or what?'

4) (IB)hunco mónus ke bimar holi (LK)ki (DB)kósón holi?
that of husband OM sickness it became or what it became
'Her husband became sick or what happened?'

5) (IB)durga mén bokra anla (LK)ki (DB)kósón?
Durga pl. goat they brought or what
'Did Durga's people bring the goat or what happened?'

3.2 Alternative Sentence.

The Alternative Sentence consists of two independent bases joined by an alternating link. The bases are filled by independent clauses linked by a conjunction.

Basic Sentence Formula:

+	IB 1	IndCl	+	± LK	Cj	ki, kay	+	IB 2	IndCl
	Altv Prop			Alt Piv		'or'		Altv Prop	

The two propositions are in a disjunctive relationship. The relationship between the propositions may be either:

a) Positive-negative alternation of the same proposition.

1) (IB 1)tumi bolase (LK)ki (IB 2)ni bolase.
you you will say or not you will say
'Either you will speak or you won't.'

b) Alternate choices between different propositions.

2) (IB 1)[illegible] rolu (LK)kay (IB 2)uba rou:.
having sat we were or standing we were
'Either we had sat or we had stood.

3.21 Alternative Subtype 1.

The propositions are in a positive-negative alternating relationship where the initial proposition is always positive and the final proposition is always negative.

The independent bases are filled by matching independent clauses from the Active or Eventive sets of clauses. However, the clause filling IBase 2 is reduced to just the predicate plus a negative.

3) (IB 1)hun dine [illegible] món kaTot (IB 2)ni kaTot.
that day on spirit pl. they cut not they cut
'On that day the spirits will either cut or they won't.'

The sentence is expressed in projected time. The same verb plus suffixes will occur in each base. That is, if IBase 1 is aorist, then IBase 2 is also aorist, as well as being negated. The Subjects remain the same across the bases. When imperative mood occurs in Base 1 then imperative mood also occurs in Base 2.

4) (IB 1)tui likun des (IB 2)ni likun des.
you having written give! not having written give!
'Either you write or don't write!'

The alternating link, ki/kay, is readily elicitable but rarely occurs in text or conversation since alternation in this sentence type is implied by the juxtaposition of the same two clauses, the second of which is reduced and negated.[8] The linear ordering is as displayed in the four box array and no permutation is allowed.

5) (IB 1)saka hoot (IB 2)ni hoot.
healing they become not they become
'Either they heal or they don't.'

3.22 Alternative Subtype 2.

The propositions are in an alternating relationship where each proposition is an alternate choice expressed positively.

The independent bases are filled by independent matching clauses from the Attributive set when identification of an item is in focus as in the following example.

6) (IB 1)ra:Di co ghór ay (LK)kay (IB 2)sórkar co ghór ay.
widow of house it is or government of house it is
'Either it is a widow's house or it is a government house.'

The independent bases are filled by independent clauses from the Active or Eventive clause sets when alternate events are in focus. The tense of the verbs will be the same in each base. The Subjects will be the same across the bases. Negation does not occur on any base. The linear ordering of the bases is not rigid and permutation may occur.

4. Restatement.

The restatement group of sentences consists of five basic types. Two of the sentences are subordinate (Positive Echo Question and Negated Specific-Generic), and the other three are paratactic (Negated Antonym, Magnification, and Positive Specific-Generic).

The relationships of the propositions of the various sentences may be summarized by tree diagram as in Figure 10.

4.1 Positive Echo Question Sentence.

The Positive Echo Question Sentence consists of an independent and a dependent base. The independent base is filled by an independent clause while the dependent base is filled by a formulaic clause.

Basic Sentence Formula.

+	IB	IndCl	+	DB	FormCl 2
	Iden Prop	decl mood		Echo Qn Prop	neg interrog mood. 'Yes' response required

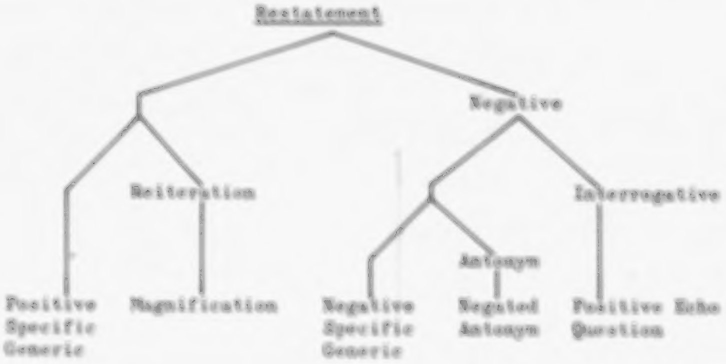


Figure 10. Restatement Branch.

The propositions of the sentence are in a restatement relationship in which the second proposition rephrases the first in the form of a question in minimal form. The question requires a positive answer affirming the content of the first proposition.

1) (IB)rati bera məsin sunalas (DB)ne bai?
night time taperecorder you caused to hear isn't that so Bai
'Last night you played the taperecorder for us, didn't you Bai?'

The independent base may be filled by an independent clause from the Active, Eventive, Stative, or Attributive sets of clauses.

2) (IB)tumce datun aur ay (DB)ne bai?
you of toothstick other it is isn't that so Bai
'Your toothsticks are different, aren't they Bai?'

There is no observable limitation to tense or aspect. Interrogative mood may not occur in the independent base since the whole sentence is interrogative as a result of the dependent base. The independent base may be either negative or positive.

3) (IB)hun mān ni ila (DB)ne sukri?
that pl. not they came isn't that so Sukri
'They didn't come, did they Sukri?'

The dependent base is filled by Formulaic Clause 2. This formulaic clause may consist of the word ne or aiy both of which mean 'isn't that so?'. The general sentence periphery Vocative tagmeme occurs frequently with this sentence and normally follows the dependent base.

4) (IB)ami hubelāry kori didi sõge nahalu (DB)ne
we at that time Kori Didi with we bathed isn't that so

koRi didi?
Kori Didi
"At that time we bathed with Kori Didi, isn't that so Kori Didi?"

5) (ID)goTHk Da:Da martar hiti ke sargi sorde (DB)acy?
one sugarcane hitting thing OM having told I will be isn't

that so
"I'll tell you about cutting the sugarcane, okay?"

A distinctive rising question intonation pattern occurs on the dependent base. The linear ordering of the bases is as displayed in the four box array and no permutation is allowed.

6) (ID)e bai ce bia Gndelise (DB)ne?
this lady of wedding it has arrived isn't that so
"This lady's wedding (time) has arrived, hasn't it?"

7) (ID)odacy mecy bele serde (DB)acy?
now I also I will come isn't that so
"I will come now, shall I?"

8) (ID)peka jane (DB)ne?
very well he knows isn't that so
"He knows it very well, doesn't he?"

9) (ID)nani ketese (DB)ne?
like that he is performing isn't that so
"He is doing it just like he should, isn't he?"

6.2 Negated Antonym Sentence.

The Negated Antonym Sentence consists of two independent bases. The bases are filled by independent clauses.

Basic Sentence Formula:

=	ID 1	IndCl	+	ID 2	IndCl
	Idea	pos		Restat	neg
	Prop	S_i		Prop	S_i

The propositions are in a restatement relationship in which one restates the other by negating an antonym of a constituent of the other (usually the predicate).

1) (IB 1)i baT ke ia (IB 2)huta ni góna.
this(emph) way OM come! there not tarry!
'Come back this way, don't tarry there!'

The bases are filled by independent clauses from the Active, Eventive, or Stative sets of clauses. The independent clauses tend to be matched across the bases so that when an Intransitive clause fills IBase 1 then an Intransitive clause will also fill IBase 2. The same mood, voice, and tense tend to occur in each base.[9]

2) (IB 2)e log nactor nu ay (IB 1)ogay houn
this people dancing not it is quietness having become

rotor ay.
being it is
'These people ..e not to be dancing, they are to be remaining quiet.'

3) (IB 2)tumi gir co e paT ni naka (IB 1)bhitre raha
you line of this side not cross! inside stay!
'Don't cross this side of the line, stay inside.'

The same Subject occurs in each base and is overt only in the base which occurs initially in the linear order. The final base of the linear order is often reduced to only the Predicate. The linear ordering is quite loose so that permutation of the order displayed in the four box array frequently occurs. One of the bases must be negated.

4) (IB 2)leka ke ni Tebaua (IB 1)euk dias.
boy OM not cause to stop! to come give!
'Don't stop the boy, allow him to come!'

5) (IB 2)maɪd ni hoe (IB 1)patór holise.
thickness not it becomes thinness it has become
'It didn't become thick, it became thin.'

6) (IB 2)cuTea rani ni manli (IB 1)khedun nili.
mouse Queen not she obeyed having chased she took
'The Mouse Queen didn't obey, she (disobeyed and) chased the cattle.'

7) (IB 2)tumi kakRi ke ni raɪdas (IB 1)óeni khauóhas.
you cucumber OM not you cook just like this you will eat
'You don't cook cucumbers, you just eat them raw.'

8) (IB 2)hun leki goTók niɪd ni soe (IB 1)sóbu ke dókte
that girl one sleep not she slept all OM seeing

roe.
she was
'The girl didn't sleep a wink, she was looking at everything.'

4.3 Negative Specific-Generic Sentence.

The Negative Specific-Generic Sentence consists of one dependent base, with the possibility of another, and a final dependent base. The dependent bases are filled by dependent clauses while the final dependent base is filled by a formulaic clause.

Basic Sentence Formula:

+	DB 1	DepCl 6	±	DB 2	DepCl 6	+	FIN DB	Form Cl 3
	Sp Prop	S_i neg		Sp Prop	S_i neg		Generic Prop	S_i neg

The propositions of the sentence are in a restatement relationship in which the specific propositions enumerate one or more different predications conceptually included in the generic proposition. All propositions must be expressed in the negative and have a common topic.

1) (DB 1)leki khadlise mai (DB 2)sodlise mai (FIN DB)
girl she has eaten not is she has slept not is

haiy mai.
anything not is
'The girl hasn't eaten, she hasn't slept, she hasn't done anything.'

The dependent bases may be filled by Dependent Clause 6 from the Active, Eventive, or Attributive sets of clauses. When the dependent bases are filled by clauses from the Active or Eventive sets then the same Subject will occur in each base. When the dependent bases are filled by clauses from the Attributive set then different Subjects will occur in each base but a common possessor (stated in DBase 1) applies to all bases (See example 2). When more than one dependent base occurs then each base is filled by a clause from the same clause set, and the verbal suffixes will be the same. All the bases are negated.

2) (DB 1)hunco baba mi ay (DB 2)aya mi ay (FIN DB)
that of father not he is mother not she is

haiy mi ay.
anything not it is
'He doesn't have a father, he doesn't have a mother, he doesn't have anyone.'

The dependent bases are dependent as a result of the permutation of the negative from its normal position preceding the predicate to a position following the predicate where its form also changes. The usual use of the negative would be:

leka ni khae
boy not he eats "The boy doesn't eat"

However, in this sentence type the above example becomes:

leka khae nai
boy he eats not is "The boy doesn't eat"

The FIN DBase is filled by Formulaic Clause 3. There are two structural possibilities for this formulaic clause:

a) kacy ci nai
anything just not is "(he) just won't (do) anything"

The predicate nai is a form of the negative n- plus a form of the verb ah "to be", while the topic is the generic word kacy "anything". The emphatic particle ci "just" may be added to this formulaic clause.

b) kacy ci ni ay
anything just not it is "there just isn't anything..."

The predicate ni ay consists of the free form negative ni "not" and a form of the verb ah "to be", while the topic is the generic word kacy "anything". The emphatic particle ci "just" may be added to this formulaic clause.

The linear ordering of the bases of the sentence is as displayed in the four box array and permutation of the dependent bases with the FIN DBase is not allowed. When more than one dependent base occurs then these may permute with one another.

3) (DB 1)leka khae nai (FIN DB)kacy nai.
boy he eats not is anything not is
"The boy doesn't eat or anything."

4) (DB 1)moke bhai ni ay (FIN DB)kacy ni ay.
I of brother not he is anything not it is
"I don't have a brother or anyone."

4.4 Magnification Sentence.

The Magnification Sentence consists of at least two independent bases, with the possibility of a third. The bases are filled by independent clauses.

The relationship between the propositions is one where the second and third propositions are restatements of the initial theme or topic proposition. The restatement propositions enlarge upon, magnify, or expand the theme of topic.

Basic Sentence Formula:

	IB 1	IndCl		IB 2	IndCl		IB 3	IndCl
+	Topic Prop	S_i P_i	+	Magnf of Topic Prop	S_i P_i	±	Magnf of Topic Prop	S_i P_i

1) (IB 1)moro ghóro na (IB 2)móro beTi kaje ghór juaiy
I of house in stay! I of daughter for house young man

tha
stay!
'Stay in my house, stay as a husband for my daughter!'

The independent bases are filled by independent clauses from either the Active or Stative sets of clauses. The same clause will occur in each base. That is, when a SemiTransitive clause fills IBase 1, a SemiTransitive clause will also fill IBase 2 and 3. The same Subject and the same Predicate occur in each base, thus providing a close linkage of the bases. Tense, mood, voice, and aspect will be the same in each base.

2) (IB 1)tumi jaho (IB 2)tumi chóy bhai jaho.
you go! you six brother go!
'Go! You six brothers go!'

Negation does not occur in any base. The linear ordering of the bases is usually as displayed in the four box array, but permutation of topic to sentence final position is allowed.

3) (IB 1)goTay gaõr ro log jaset (IB 2)lad boli ne jaset.
all village of people they go Lad Boli to they go
'All the villagers go, they go to Lad Boli.'

4) (IB 1)kichu khaja khailu (IB 2)ciwRa kera aru lai
much tidbit we ate rice mixture banana and puffed rice

miThai sob khailu.
sweets all we ate
'We ate lots of tidbits, we ate rice mixture, bananas, and puffed rice and sweets and all.'

5) (IB 1)dukan dukan dukan bulese (IB 2)e kópRa dukan
shop shop shop he is walking this cloth shop

bulese (IB 3)un pan dukan bulese.
he is walking that betel nut shop he is walking

'He is walking around the shops, he is walking around the cloth shop, he is walking around the betel nut shop.'

4.5 Positive Specific-Generic Sentence.

The Positive Specific-Generic Sentence consists of one independent base, with the possibility of up to three, and a final independent base. The bases are filled by independent clauses.

Basic Sentence Formula:

$$+ \frac{\text{IB 1} \;\vdots\; \text{IndCl}}{\begin{array}{l|l}\text{Sp} & P_i \\ \text{Prop} & \text{pos}\end{array}} \quad \pm \frac{\text{IB 2,3} \;\vdots\; \text{IndCl}}{\begin{array}{l|l}\text{Sp} & P_i \\ \text{Props} & \text{pos}\end{array}} \quad + \frac{\text{FIN IB} \;\vdots\; \text{IndCl}}{\begin{array}{l|l}\text{Generic} & P_i \\ \text{Prop} & \text{pos}\end{array}}$$

The propositions of the sentence are in a restatement relationship in which the specific propositions enumerate one or more different specifics included in the all inclusive generic proposition. All propositions must be expressed positively and have a common Predicate.

1) (IB 1)sukai bhijli (IB 2)cita bhijli (FIN IB)
dried fish it got wet custard apple it got wet

jóma bhijli.
all it got wet
'The dried fish got wet, the custard apples got wet, everything got wet.'

The all inclusive (generic) proposition has a Subject which involves the use of a generic or summary word meaning 'all' such as:

sáb leka mán
all boy pl. 'all the boys'

gulay ga:w ca log
all village of people 'all the villagers'

2) (IB 1)ami bia dékuk jaumu: (IB 2)sukuntula mán jauat
we wedding to see we will go Sukuntula pl. they will go

(FIN IB)gulay ga:w ca log jauat.
all village of people they will go
'We will go to see the wedding, Sukuntula's family will go, the whole village will go.'

The bases are filled by independent clauses from the Active, Eventive, or Stative set of clauses. The same emic clause type must occur throughout the bases. That is, if IBase 1 is filled by an Intransitive clause then all the bases including FIN IBase are filled by the same.

Also, the verbal suffixes of each base will be the same. At present only present perfect, present continuous, simple future, and simple past tenses have been observed to occur. The verb ASE 'to be' also occurs. Mood, voice, and aspect are the same throughout the bases. Negation does not occur on any base. The Predicates will be the same in each clause with only the Subjects being different.

3) (IB 1)hun lāgo ami rola (IB 2)durga mān rola (IB 3)
that place in we we were Durga pl. they were

chi:gRu mān rola (FIN IB)sāRu log rola.
Chingaru pl. they were all people they were
"We were at that place, Durga's people were there, Chingaru's people were there, everyone was there."

The linear ordering of the sentence is usually that displayed in the four box array. The FIN IBase does not interrupt the linear ordering of the IBases but it may permute to a position immediately preceding the IBases. Where several IBases occur these may permute with one another.

4) (IB 1)eau dhan boha boha baRlise (FIN IB)sāRu boha
this year paddy rice good good it has grown all good

boha baRlise.
good it has grown
"This year the paddy rice did well, everything has done well."

5) (FIN IB)sāb log asot (IB 1)tati ghōro log asot
all people they are Tati house of people they are

(IB 2)sisha ghōro log asot (IB 3)paTel ghōro
Sisha house of people they are Patel house of

log asot.
people they are
"All the people are there, Tati's house's people are there, Sisha's house's people are there, Patel's house's people are there."

5. Coupling.

The coupling group of sentences consists of four basic types. One of the sentences is coordinate (Conjoined), two are paratactic (Identity-Contrast and Descriptive Listing) and one is subordinate (Antithetical).

The relationship of the various sentences may be summarized in the following tree diagram:

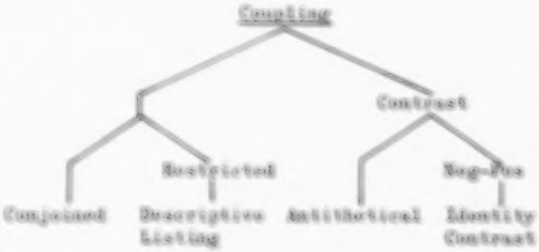


Figure 11. Coupling Branch.

7.1 Identity-Contrast Sentence.

The Identity-Contrast Sentence consists of two independent bases. The independent bases are filled by independent clauses.

Basic Sentence Formula:

$$+\frac{\text{ID 1} \;\vdots\; \text{IndCl}}{\text{Iden Prop} \;\vdots\; \text{pos/neg}} \qquad +\frac{\text{ID 2} \;\vdots\; \text{IndCl}}{\text{Contrast Prop} \;\vdots\; \text{neg/pos}}$$

The relationship of the two propositions is one of contrast. This contrast is maintained by a two-fold difference between them. The first is a positive-negative or negative-positive relationship between their Predicates. This is shown in box 7 of the formula above. The second difference requires that a participant or supporting prop (setting, location, time) of one must contrast with a corresponding participant or supporting prop of the other. The reader can note this twofold difference in other examples, but note the pattern in examples 1 and 2 in the Figure below.

Base Example	Base 1	Base 2
1	a. in your country b. give	a. in our country b. do not give
2	a. his father b. is alive	a. my father b. isn't (alive)

Figure 12. Two-fold Difference Chart.

ED 087 206 PATTERNS IN CLAUSE, SENTENCE, AND DISCOURSE IN SELECTED LANGUAGES OF
INDIA AND NEPAL: PART I, SENTENCE AND DISCOURSE. TRAIL, RONALD L.
OKLAHOMA UNIV., NORMAN. SUMMER INST. OF LINGUISTICS. 1973 349P.

1) (IB 1)tumco des ne k6sa ni deot
you of country in purification ceremony not they give

(IB 2)amco des ne deuat.
we of country in they will give
'In your country they don't perform the K6sa purification ceremony, in our country they do perform it.'

2) (IB 1)hunco baba ase (IB 2)m6co baba ni ay.
that of father he is I of father not he is
'His father is alive, my father isn't.'

The independent bases are filled by independent clauses from the Active, Eventive, Stative, or Attributive sets of clauses. Generally, the clauses filling the two bases are matched so that both will belong to the same set—Active with Active, Eventive with Eventive, Stative with Stative, and Attributive with Attributive.

3) (IB 1)m6co beTa beTi nu at (IB 2)tuco beTa beTi
I of son daughter not they are you of son daughter

at.
they are
'They are not my children, they are your children.'

4) (IB 1)gay gor6s ni anlo (IB 2)bag gor6s anlo.
cow milk not he brought tiger milk he brought
'He didn't bring cow milk, he brought tiger milk.'

Sometimes even though the clauses do not match yet the identity-contrast relationship still exists. When this is true, negated clause from the Attributive set will usually be one of the clauses.

5) (IB 1)raja to nu ay bai (IB 2)rani ke d6klu.
king part. not he is Bai queen OM we saw
'It wasn't the king, Bai, we saw the queen.'

No adversative conjunction exists which would provide a close contrastive link. The two-fold contrastive relationship of the two propositions provides the semantic linkage. Grammatically, the linkage for the two bases may be:

a) The juxtaposition of the two clauses,
b) The obligatory presence of a negative particle in one base versus its absence in the other,
c) The occurrence of contrasting tagmemes such as—Subject versus Subject, Object versus Object, and so on, or
d) The optional occurrence of the emphatic tagmeme mant6r, from the specialized periphery which is emphasizing the truth or correctness of both bases.

6) (IB 1)tumco 16ge 6sp6tal neuat (EMPH)mant6r
you of place in hospital they will take emph.

(IB 2)amco 16ge ni neuat.
we of place in not they will take
'In your country they will take (sick people) to the hospital, but in our country they don't take them.'

When the same Predicate occurs in the bases then the second Predicate may be deleted. When this occurs then the positive base will occur initially and the negative base finally.

7) (IB 1)phus jon ne nacuat (IB 2)aur jon ne nai.
lunar month moon in they will dance other moon in not is
'They will dance in the month of Phus, not in another month.'

8) (IB 1)ma:g jon ne pakuay (IB 2)ebe nai.
lunar month moon in it will ripen now not is
'In the month of Mang it will ripen, not now.'

9) (IB 1)phujari k6ruay (IB 2)aur log nai.
priest he will perform other people not is
'The priest will perform the ceremony, not anyone else.'

The linear ordering of the sentence is loose in that no specific base must occur initially or finally.

10) (IB 1)mo:y ni jane: (IB 2)hun leka januay.
I not I know that boy he will know
'I don't know but that boy will know.'

11) (IB 1)m6ke nu ay bai (IB 2)aru leki ke ay.
I OM not it is Bai other girl OM it is
'It isn't me, Bai, it's another girl.'

12) (IB 1)6ytwar aur 16kinbar rati mas ni khaot (IB 2)aur rati
Sunday and Thursday night meat not they eat other night

khauat.
they will eat
'They don't eat meat on Thursday and Sunday nights but they will eat it other nights.'

13) (IB 1)mu:de bera sag khauau: (IB 2)rati bera ni khau:
midday time curry type we will eat night time not we eat
'At midday we eat vegetable curry but not at night.'

5.2 Antithetical Sentence.

The Antithetical Sentence consists of one dependent and one independent base. The dependent base is filled by a dependent clause while the independent base is filled by an independent clause.

<u>Basic</u> <u>Sentence</u> <u>Formula</u>:

+	DB	DepCl 1	+	IB	IndCl
	Contr Factl Thesis Prop	unreal		Factl Anti- Thesis Prop	real

The propositions are in a thesis-antithesis relationship to each other characterized by the English conjunction 'but' (A but B). Proposition one states an event which is never realized. Against this or in spite of it, proposition two is realized. The word <u>mant6r</u> occurs between the propositions and emphatically asserts that the sentence is true.

```
1)  (DB)616s  bai jatibe        (EMPH)mant6r (IB)pren bai co kirta  janu
         Alice Bai she would go       emph.       Fran Bai of reason part.

          eta  Theblise.
          here she has stayed
          'Alice Bai would have gone but because of Fran she has stayed
          here.'
```

The dependent base is filled by Dependent Clause 1 from the Active clause set. The base is dependent in that it is marked only for imperfect aspect, person, and number and is dependent on the rest of the sentence to complete its meaning. The perfective auxiliary <u>ro</u> has been observed to occur. The suffix -<u>be</u> occurs on the verb but as yet its function is unknown.

```
2)  (DB)id6lda:y     gh6re    6mru              rotube      (IB)janu
         at this time house in having arrived we would be     part.

          tuci          kirta  Theblu.
          you of(emph) reason we stayed
          'At this time we would have arrived home but because of you we
          waited.'
```

The independent base is filled by an independent clause from the Active, Eventive, or Stative clause sets. The independent base is expressed in past time.

```
3)  (DB)mo:y mo:d khatebe      (EMPH)mant6r (IB)e    ci        kirta
         I    wine I would eat        emph.      this of(emph) reason
```

ogay hole.
quietness I became
'I would have drunk wine but because of the others I sat quietly.'

The morpheme janu may occur with this sentence. However, like the suffix -be, its function is unknown. The emphatic tagmeme, mant6r, from the specialized periphery may optionally occur between the bases.

Negation does not occur on either base. The linear ordering of the bases is as displayed in the four box array and no permutation is allowed.

4) (DB)ami naT d6kuk jatube (IB)e ci kirta
we dance drama to see we would go this of(emph) reason

Thebluse.
we have stayed
'We would have gone to see the dance drama but because of her we stayed here.'

5.3 Descriptive-Listing Sentence.

The Descriptive-Listing Sentence consists of at least two independent bases with the possibility of up to six. The bases are filled by independent clauses.

Basic Sentence Formula:

+	IB 1	IndCl	+	IB 2	IndCl	±	IB 3-6	IndCl
	Desc Prop 1	pos neg		Desc Prop 2	pos neg		Desc Props	pos neg

Semantically the two propositions are in a coupling relationship in which each proposition adds an event or state to a list of events or states with a common topic. This descriptive listing may involve:

a) A single actor performing (or not performing) a series of actions or predications during a specific time setting.

1) (SETT)eble (IB 1)ni uTlise (IB 2)duar duari ni baRae
as yet not she has arisen courtyard not she sweeps

(IB 3)chaRa ni dee.
dung not she gives
'As yet she hasn't arisen, she doesn't sweep the courtyard nor does she dung it.'

b) A single possessor whose possessions (or lack thereof) are listed:

2) (IB 1)hunco gh6r ase (IB 2)kuRea ase (IB 3)beRa ase
that of house it is cattle shed it is field it is

(IB 4)kaRa ase (IB5)gay ase (IB 6)bachi ase.
field it is cow it is calf it is
'He has a house, a cattle shed, fields, cattle, and calves.'

The independent bases are filled by independent clauses from either the Active or the Attributive sets of clauses. No mixing of clause sets may occur. Where all the bases are filled by clauses from the Active clause set then the Subject of each base will be the same and generally each of the bases will have the same tense, mood, voice, and aspect. Changes in the tense suffixes indicate that a temporal sequence is involved. Also the Setting tagmeme from the specialized periphery must occur when the Active clause set is used.

3) (SETT)rati m6:j6n (IB 1)ni soe (IB 2)ni khae.
night day not she sleeps not she eats
'Night and day she doesn't sleep and she doesn't eat.'

Where all the bases are filled by clauses from the Attributive set then a possessive pronoun occurs in IBase 1 and this possessive pronoun applies equally to all the bases although not overtly marked. The possessive pronoun is readily supplied in each base by the language assistants but in their opinion it makes the sentence cumbersome. The possessive pronoun in the following example has been underlined.

4) (IB 1)hunco gh6r ni ay (IB 2)beRa ni ay (IB 3)bho:ysa
that of house not it is field not it is buffalo

ni ay.
not it is
'She doesn't have a house, nor fields, nor waterbuffaloes.'

The bases are either all negative or all positive. The linear ordering of the bases of the sentence is as displayed in the four box array and permutation is restricted. When all the bases are negated then permutation is allowed but only if temporal sequence is not involved. None of the positive examples are permutable.

5) (SETT)aThara din rati m6:j6n (IB 1)ek ni:d ni soe
eighteen day night day one sleep not she sleeps

(IB 2)pej bhat ni khae.
gruel cooked rice not she eats
'For eighteen days, both day and night, she hasn't slept one bit, nor eaten any gruel or rice.'

6) (SETT)rati m6:j6n (IB 1)khae (IB 2)pie (IB 3)soe
night day she eats she drinks she sleeps

(IB 4)bose.
she sits
'Night and day she eats, she drinks, she sleeps, she sits.'

7) (SETT)boRe biane (IB 1)uTe (IB 2)baRa o:Da k6re
big morning in she arises house cleaning she per-

(IB3)chaRa caT dee.
forms dunging the courtyard she does
'Early in the morning she arises, she cleans the house, she dungs the courtyard.'

8) (SETT)aji biane (IB 1)duar baRale (IB 2)chaRa dile
today morning in courtyard I swept dung I gave

(IB 3)pani anle (IB 4)ra:da ra:dle.
water I brought preparation I prepared
'Today, I swept the courtyard, dunged it, brought the water, cooked the meal.'

5.4 Conjoined Sentence.

The Conjoined Sentence consists of at least two independent bases, with the possibility of up to five, joined by a coordinating conjunction. The bases are filled by independent clauses.

Basic Sentence Formula:

+	IB 1	IndCl	+	± LK	Cj	AUR	+	IB 2	IndCl
	Iden Prop			Conn		'and'		Conj Prop	

±	[+	± LK	Cj	AUR	±	IB 3-5	IndCl	]
		Conn		'and'		Conj Prop		

The coordinate relationship is used to join propositions of equal grammatical-semantic status in a series of two or more. The propositions must have a common topic and although sequence may be involved, it is not in focus when this grammatical construction is chosen.

1) (IB 1)pej khauat (LK)aur (IB 2)aplo beRa ne jauat
gruel they will eat and one's own field in they will

mi:jak
go to weed
'They will eat gruel and they will go to their own fields to

weed them.'

The independent bases are filled by independent clauses from the Active, Eventive, Stative, or Attributive sets of clauses. The clauses filling the bases tend to be matched so that both will belong to the same set—Active with Active and so on. It has been observed that a Stative clause may follow an Active clause when location is involved.

2) (IB 1)gh6r ba:dlu (LK)aru (IB 2)a:su.
house we tied and we are
'We built a house and here we are.'

3) (IB 1)cuRator ay (LK)aur (IB 2)hunco pani ke gartor ay.
preparing it is and that of water OM pouring it is
'It is to be prepared (cooked) and its water is to be poured off.'

In general, indicative mood must match indicative mood, imperative mood must match imperative mood, hortative must match hortative.

4) (IB 1)leka tui hun cua: ne ut6r (LK)aur (IB 2)hun k6sla ke
boy you that well in descend! and that a pot OM

nikran des.
having brought out give!
'Boy! You descend down that well and fetch my pot!'

Within indicative mood the restriction is that prior propositions must be the same or prior in tense or aspect to the following propositions. This restriction may be summarized as follows:

IB 1 IB 2

Simple Past → Simple Past
Simple Past → Present Perfect

Present → Present

Future → Future

This indicates the fact that logical sequence is involved though we are positing that it is not primary.

5) (IB 1)rati bera so6lu (LK)aur (IB 2)biane uTlu (LK)aur
night time we slept and morning in we arose and

(IB 3)pher gelu.
again we went
'We slept at night and in the morning arose and again we went.'

Any base may be negated. The linear ordering of the bases is as displayed in the four box array but some permutation is allowed. Where temporal sequence is not involved then the bases may be permuted. When temporal sequence is involved then permutation may occur only after a change in sentence type. One of the bases (or several) will be changed to the dependent base of one of the sequence sentences. We posit, however, that the chief function of this sentence type is simply to list events as having occurred together. Often the situational context is responsible for contributing a temporal/logical sequence to the Conjoined Sentence.

6) (IB 1)pej khadlu (LK)aur (IB 2)Da:Da maruk gelu.
gruel we ate and sugar cane to hit we went
'We ate gruel and went to cut sugar-cane.

This Conjoined Sentence becomes a Specific Sequence Sentence when IBase 1 and IBase 2 are permuted and the necessary grammatical changes made to the structure:

(IB)Da:Da maruk gelu (DB)pej khaun bhati.
sugar cane to hit we went gruel having eaten after
'We went to cut sugar-cane after having eaten our gruel.'

In general, the Subjects will be the same in each base. The coordinating conjunction AUR has two forms—aur and aru. aur is used by men and aru is used by women.

7) (IB 1)pani t6pali (IB 2)nahan dili.
water she heated having bathed she gave
'She heated water and bathed.'

8) (IB 1)hun m6n ch6ya co m6ya hola (LK)aru (IB 2) up6r phur
that pl. disappearance they became and above world

ne gela.
in they went
'They disappeared and returned to the upper world.'

6. Complementation.

The complementation group of sentences consists of five basic types. Three of the sentences (Disclaimer-Conjecture, Witness-Fact, and Quotation) are grammatically paratactic, and the other two (Proportional-Comparison and Topic-Comment) are subordinate.

The relationships of the propositions of the sentences may be summarized by tree diagram as in Figure 13.

6.1 Disclaimer-Conjecture Sentence.

The Disclaimer-Conjecture Sentence consists of one dependent and one independent base without any overt linking conjunctions. The dependent base is filled by a rhetorical question and the independent base is

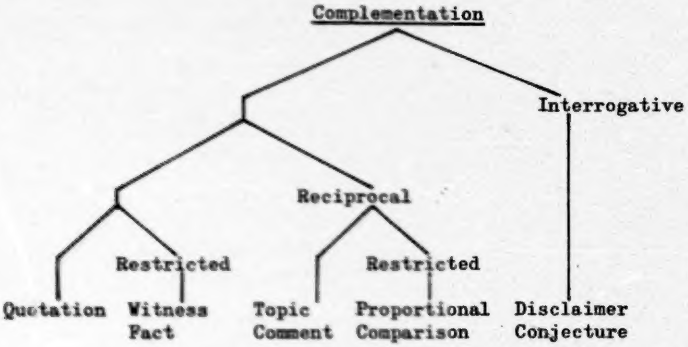


Figure 13. Complementation Branch.

filled by an independent clause.

Basic Sentence Formula:

+	DB	RhetQn	+	IB	IndCl
	Discl Prop	interrog		Conjt Prop	

The two propositions are in a complementary relationship—the second to the first. The initial proposition of the sentence disclaims or denies all knowledge concerning the proposition which follows. The second proposition then is a conjecture as to the existence or availability of an item or a conjecture about an occurrence of which the speaker has no first hand knowledge.

1) (DB)kon janlose (IB)phur phura bole eu roede.
who he has known flood also having come it will be
'Who knows whether a flood will have come.'

The dependent base is filled by a clause from the Stative clause set and is always expressed in interrogative mood. The question thus formed is a rhetorical question and no response is required from the audience. The DB is incomplete and formulaic. The rest of the sentence is required to complete the meaning. All the examples show only one form of the verb 'to know' which is present perfect, third person, masculine. However, the language assistants agree that other forms of the verb are possible.

The independent base is filled by an independent clause from the Active, Eventive, or Attributive clause sets.

2) (DB)kon janlose (IB)ag6r bole hoede.
who he has known more also it will be
'Who knows whether it will cost more.'

Negation does not occur on either base. The linear ordering is as shown in the four box array and permutation is not allowed.

3) (DB)kon janlose (IB)upre pani marlise.
who he has known above water it has hit
'Who knows, it may have rained up there.'

4) (DB)kon janlose (IB)caur cun aladad dh6ru rou:.
who he has known rice large quantity having gotten we were
'Who knows whether we'll be able to get a large quantity of rice.'

6.2 Proportional-Comparison Sentence

The Proportional-Comparison Sentence consists of two dependent bases. These dependent bases are filled by dependent clauses.

Basic Sentence Formula:

	DB 1	DepCl 8		DB 2	DepCl 8
+	Quant Prop	j- relative prefix	+	Proport Prop	h- prefix

The two propositions are in a correlative complementary relationship. The initial proposition is a quantified proposition, a 'plumb-bob' or scale, focussing on one element only of the proposition. Against this a similar element in the second proposition can be related or measured exactly. Time, location, quantity, and manner are the non-nuclear clause elements which are relateable (measurable) across the bases. In the following example location is being related across the bases.

1) (DB 1)je 16ge pani 16ge roede (DB 2)hun 16ge cua:
wherever water place in it will be that place in well

knoRuat.
they will dig
'Whereever there is water, at that place they will dig a well.'

Actor, possessor, action, and goal are the clause nuclear elements which are relateable (measurable) across the bases. In the following example actions are being related across the bases.

2) (DB 1)ebe tuco baba mori holoje (DB 2)usni
now you of father dead he became(relative) just like that

amco des co raja bole morlo.
we of country of king also he died
'Just as your father is dead now, so the king of our country also died.'

A contrastive feature of this sentence type is the obligatory presence of cross-referencing terms typically occurring in pairs, as:

DB 1		DB 2	
j-idlida:y j-id6lda:y	at whatever time	h-udlida:y h-ud6lda:y	at that time
j-e thane	at whatever place	h-un thane	at that place
j-itlo	however much	n-utlo	that much
j-6s6n	however	∅-us6n	like that
j-on	whoever	h-un	that one
j-e	whoever whatever	h-un	that one
j-eco	whose ever	h-unco	his, hers, its
j-e	verb relative	∅-usni	just like that

As a result of the obligatory presence of the cross-referencing prefixes (j- and h-) both bases are considered dependent.

3) (DB 1)jitlo m6cri jhari ne poRede (DB 2)hutlo ke
however much fish net in it will swim that much OM

dh6rtor ay.
taking hold of it is
'However many fish swim into the net, that many fish are to be caught.'

The clause types which fill the two bases are not usually matched. DBase 1 is filled by Dependent Clause 8 from the Active, Eventive, Stative, or Attributive clause sets. DBase 2 is also filled by Dependent Clause 8 from the Active or Eventive clause sets. Co-occurrence restrictions on the clauses appear to be semantically or situationally governed.

4) (DB 1)j6s6n age co m6hal roli (DB 2)usni m6hal ba:dla.
however before of palace it was like that palace they

tied
'However the palace was previously, just like that they built it.'

The following tenses have been observed in DBase 1: simple future, simple past, and aorist. The perfective auxiliary ro may also occur. No other verbal auxiliaries have been observed. The following tenses have been observed in DBase 2: simple future and simple past. Imperative or interrogative mood, or psuedo-passive voice may occur. No verbal auxiliaries have been observed. In example 5, DBase 2 is expressed in imperative mood and in example 6, DBase 2 is expressed in interrogative mood.

5) (DB 1)ami jid6lda:y eu:de (DB 2)hud6lda:y sa:g.
we at whatever time we will come at that time tell!
'At whatever time we will come, at that time tell us!'

6) (DB 1)amco des ne nua: manluje
we of country in New Year festival we celebrated(relative)

(DB 2)usni tumi bole manu6has?
just like that you also you will celebrate
'Just as we celebrate the New Year festival here, in your country, do you also celebrate the same festival like that?'

Neither base is negateable. The linear ordering of the bases is as displayed in the four box array and no permutation is allowed. The Predicate of one of the bases may be deleted but never both. Other clause level tagmemes may also be deleted. These deletions may be predicatable but as yet no pattern has been observed. Examples 7, 8, and 9 show some of these deletions.

7) (DB 1)j6s6n co m6hal (DB 2)us6n holi.
however of palace like that it became
'Whatever the palace (was like before) that's how it became.'

8) (DB 1)jitlo dhan co (DB 2)hutlo caur monali.
however much paddy rice of that much rice she made
'However much paddy rice there was, that much rice she made.'

9) (DB 1)jid6lda:y ami eu:de (DB 2)hud6lda:y?
at whatever time we we will come at that time
'At whatever time we will come, at that time?'

10) (DB 1)jid6lda:y mo:y phirte roe (DB 2)hud6lda:y boRe
at whatever time I returning I was at that time big

m6skul ne poRle.
difficulty in I fell
'At whatever time I was returning, at that time I fell into difficulties.'

11) (DB 1)j6s6n j6s6n hun deo sa:gu roede (DB 2)us6n
however however that spirit having told it will be like

joRtor ay.
that putting together it is
'Just as that spirit will have said, like that it is to be gotten together.'

6.3 Topic-Comment Sentence.

The Topic-Comment Sentence consists of one dependent and one independent base. The dependent base is filled by an axis-relator clause or a dependent clause and the independent base is filled by an independent clause.

Basic Sentence Formula:

+	DB	A-RCl 1 DepCl 5	+	IB	IndCl
	Topic Prop	indefinite		Comment Prop	

The two propositions are semantically in a complementary relationship. The initial proposition identifies a theme or topic which is expounded by the final proposition. In other words, the topic proposition highlights or spotlights one particular item upon which the comment proposition enlarges.

1) (DB)kon des ne ay ale (IB)hun thane l6R6i holi.
which country in it is when that place in war it became
'Whatever country it is in, a war occurred there.'

2) (DB)koni hoo (IB)haT baTe Da:Da bikuat.
whoever it may be market way in sugar cane they will sell
'Whoever it may be, they will sell the sugar-cane in the market.'

The dependent base may be filled by Axis-Relator Clause 1. The clause filling the axis is an independent clause from the Active, Eventive, or Attributive sets of clauses. Typically, the clause is from the Attributive set as the identification of an item is in focus. The combination of a question word (marked by prefix k-) and the relator ALE results in an indefinite meaning to the item in focus.

3) (DB)kay g6Rur ay jale (IB)hun co paT ne mo:ji g6ta bosli.
what crocodile it is when that of back in middle she sat
'Whatever crocodile it is, she sat on the middle of its back.'

The dependent base may also be filled by Dependent Clause 5 from the Eventive clause set. The clause typically identifies a location, time, person, or thing. The combination of a question word or a generic word (both marked by prefix k-) and the verb houk 'to become' in the optative mood results in an indefinite meaning to the item in focus.

4) (DB)k6ha:y hoo (IB)raha.
wherever it may be stay!
'Wherever it may be, stay there!

The occurrence of either Axis-Relator Clause 1 or Dependent Clause 5, in the dependent base, is dependent upon the speaker's attitude or outlook toward the eventuation of the topic proposition. The author feels that one is probably further removed from reality than the other although which one it would be is unknown.

The independent base is filled by an independent clause from the Active, Eventive, or Stative sets of clauses. Psuedo-passive voice or imperative mood may occur.

5) (DB)kitlo dhan ay ale (IB)anun dias.
how much paddy rice it is when having brought give!
'However much paddy rice there is, bring it!'

6) (DB)kidliuay hoo (IB)amco gh6re ia.
whatever time it may be we of house in come!
'At whatever time it may be, come to our house!'

Neither base is negateable. The usual linear ordering of the bases is as displayed in the four box array but permutation may occur. When permutation does occur then the relator of the axis-relator clause may be deleted as shown in example 7.

7) (IB)pher jator ay (DB)kon t6ri ne ay.
again going it is which pond in it is
'To whichever pond it is, (to that pond) one is to be going.'

8) (IB)khau:be (DB)ka:y ci hoo.
we eat anything just it may be
'Whatever it may be, we eat it.'

No interruption of the internal linear ordering of the dependent base is allowed. However, when an axis-relator clause fills the dependent base it may interrupt the internal linear ordering of the independent base as in example 9.

9) (IB)hun may beTi kaje (DB)kay kay dh6run dilo
that mother daughter for what what having gotten he gave

ale (IB cont.)hun ke d6kak anu roe.
when that OM to show having brought he was
'Whatever he got hold of, he had brought it for the mother and daughter to see it.'

10) (DB)kitlo dhur le ila ale (IB)eta bisalasot.
how much distance from they came when here they have rested
'However far they have come from, here they have rested.'

11) (DB)kay na:w co raj ay ale (IB)hun thane ase.
what name of country it is when that place in she is
'Whatever is the name of the country, she is there.'

6.4 Witness-Fact Sentence.

The Witness-Fact Sentence consists of two independent bases. The bases are filled by independent clauses.

Basic Sentence Formula:

+	IB 1	IndCl	+	IB 2	IndCl
	Fact Witness Prop			Stat of Fact Prop	

The two propositions are in a complementary relationship in which the second completes the meaning of the predicate of the first. The initial proposition of the sentence introduces a predication which asserts a mental or sensory activity such as 'see' or 'know'. The second proposition states the event which is visually or otherwise perceived or known. The word mant6r may occur between the propositions and emphatically asserts that both the initial proposition and the final proposition are true and definitely occurred.

1) (IB 1)mo:y jane: (EMPH)mant6r (IB 2)hun leka 6cha ay.
I I know emph. that boy good he is
'I know for sure that the boy is good.'

Where the second proposition is secondhand information and has not been witnessed firsthand then the word m6ne 'it is said' will be added to the end of the proposition. In using m6ne, the speaker is disclaiming responsibility for the proposition which precedes it.

2) (IB 1)chi:gRu pep6r ne poRlo (EMPH)mant6r (IB 2)ba:gla des
Chingaru newspaper in he read emph. Bangla Desh

ne khub log morla (RDM)m6ne.
in much people they died it is said
'Chingaru read in the newspaper that many people died in Bangla Desh.'

The independent clauses which may fill IBase 1 are from the Stative clause set. The predicates of these dependent clauses all indicate some sort of awareness such as: d6k 'see', jan 'know', sun 'hear', poR 'read'.

The IBase 1 is always positive but IBase 2 may be either positive or negative. The emphatic tagmeme mant6r, from the specialized periphery, may occur between the bases. Also the responsibility disclaimer tagmeme m6ne, from the specialized periphery, may occur following IBase 2.

3) (IB 1)chi:gRu sunlo (EMPH)mant6r (IB 2)bai nagpur baTe Dera
Chingaru he heard emph. Bai Nagpur way in lodging

dh6rli (RDM)m6ne
she got it is said
'Chingaru heard positively that Bai had gotten lodgings in Nagpur.'

Independent clauses from the Active, Eventive, Stative, and Attributive clause sets fill IBase 2. The linear ordering of the bases is as displayed in the four box array and no permutation is allowed.

4) (IB 1)s6b log d6kte rola (IB 2)koki ni mare.
all people seeing they were to anyone not he hits
'Everyone saw that he didn't hit anyone at all.'

5) (IB 1)durga m6n d6kla (IB 2)hun leki haT baTe geli.
Durga pl. they saw that girl market way in she went
'The people of Durga's house saw her go towards the market.'

6) (IB 1)bai d6klise (EMPH)mant6r (IB 2)kaThma:Du ne khub hipi
Bai she has seen emph. Kathmandu in much hippie

m6n asot.
pl. they are
'Bai saw that there were many hippies in Kathmandu.'

7) (IB 1)leka janlo (IB 2)sah6b m6n puna baTe jau
boy he knew official pl. Poona way in having gone

rola.
they were
'The boy knew that the officials had gone to Poona.'

6.5 Quotation Sentence.

The Quotation Sentence consists of two independent bases. The filler of the first base is unlimited while the independent clause which fills the second base is limited to the Stative set and verbs of vocal or mental activity.

Basic Sentence Formula:

+ IB 1	wd,Ph,Cl, Sen,Para,Disc
Quotation Prop	

+ IB 2	IndCl
Quote Formula Prop	

The two propositions are in a complementary relationship in which the first proposition completes the meaning of the Predicate of the second. The second proposition of the sentence is a predication which asserts a speech act such as 'say'. The initial proposition states what it is that is actually said.

1) (IB 1)car rupea a:t ana dias (IB 2)mo:y bolle.
four rupees eight anna give! I I said
'I said, "Give four rupees and eight annas."'

The IBase 2 is filled by an independent clause from the Stative clause set. The predicate will indicate some sort of verbal or mental speech act such as bol 'say', sa:g 'tell', or bon 'think'.

2) (IB 1)k6s6n khu:dese? (IB 2)bone:se.
what he is stamping I am thinking
'I am thinking to myself, "Why is he stamping?"'

3) (IB 1)ia utraklay (IB 2)bolese.
come! in order to take down she is saying
She is saying, "Come and take this thing down (off my head)!"'

IBase 1 may be filled by a word, phrase, clause, sentence, paragraph, or discourse. In this paper the examples of the filler of IBase 1 are deliberately limited to short ones for illustrative purposes.

Frequently the subject of IBase 2 fills the afterthought tagmeme, of the specialized periphery, as in the following example.

4) (IB 1)may loTea anlo ni more (IB 2)bolese (AFTH)
exclam. he brought not he dies he is saying

hun raja.
that king
'That king is saying, "Curses, he brought it, he didn't die."'

Many of the sentence periphery tagmemes will occur in IBase 1. This is a result of the fact that normally whatever occurs in the actual speech event is quoted completely and will frequently include paragraph and discourse level particles.

5) (IB 1)ale bhaci kaje paTa paTi dh6ras nai (IB 2)bolese
att. niece for handwoven cloth you get won't you he is

(RDM)m6ne (AFTH)s6tra bita.
saying rdm father in law thing
'The father-in-law is saying, "Listen, won't you get a handwoven cloth for the daughter-in-law."'

The typical linear ordering of the bases is as displayed in the four box array. However, IBase 1 may permute to a position where it interrupts the internal linear ordering of IBase 2. The predicate of IBase 2, however, must always occur following IBase 1.

6) (IB 2)hun ke (IB 1)ai:k ulThalo (IB 2 cont.)boluat.
that OM eye he caused to turn up they

will say
'They will say to that, "He was jealous."'

7) (IB 2)hun ke log m6n (IB 1)hura holo aur gelo ci
that OM people pl. hateful he became and he went just

(IB 2 cont.)boluat.
they will say
'The people will say to that, "He became furious and just went."'

8) (IB 1)hun co kaje tumi ni khiseaua (IB 2)bolli.
that of for you not be sad! she said
'She said, "Don't be sad for that reason!"'

9) (IB 1)ja sa:gun des (IB 2)bolla (AFTH)m6-ke.
go! having told give! they said I-OM
'They said to me, "Go and tell!"'

10) (IB 1)tuco kaje kit hat co paTa dh6rtor ay
you of for how many hand of handwoven cloth getting it is

(IB 2)bolese.
he is saying
'He is asking, "How many cubits of handwoven cloth are to be gotten for you?"'

D. Sentence Combination.

There are two ways so far observed in which sentence types can combine with each other in Halbi—either by superimposing a proportional relationship on another type or by embedding a coordinate or alternative construction in the dependent base of another type.

1. Simultaneous Double Encoding.

Proportional Comparison plus General Sequence. This type, as well as the following, combine both the grammatical signals and semantic meanings of both relationships in the one sentence. Note that the j- form in the one base plus the h- form in the other signals the proportional relationship, while the ALE relator signals the general sequence relationship.

1) (DB 1)beka m6n jid6lda:y ila ale (DB 2)hud6lda:y
Becca pl. at whatever time they came when at that time

ami bokRa ke anun deu:de.
we goat OM having brought we will give
'At whatever time the Gordon's come, at that time we will bring the goat.'

2) (DB 1)je dine k6sa dila ale (DB 2)
whatever day on purification ceremony they gave when

hun dine hag deuat.
that day on they will call
'Whatever day they will give the K6sa purification ceremony, on that day they will call the village people.'

3) (DB 1)je thane bayle gh6r holi ale (DB 2)huta
whatever place in woman house it became when there

kh6rca dh6ruk jauay.
compensation to get he will go
'Wherever it is a woman sets up house then the ex-husband will go there to get compensation.'

Proportional Comparison plus Generic Temporal Condition. Again two relationships are signalled. The j-h form correlation across the bases signals the proportional relationship, while the relator -LENE signals the generic temporal conditional relationship.

1) (DB)je sag cuRu role (IB)hun sag
whatever curry type having prepared when is that curry type

deuat.
they will give
'Whenever, whatever curry is prepared, that curry they will give.'

2) (DB)jitlo din kaje neu role (IB)hutlo din
however much day for having taken when is that much day

rotor ay.
being it is
'Whenever, however, many days one is taken for, for that many days one should stay.'

3) (DB)jitlo bollene (IB)hutro dh6ruciat.
however much when say that much they will just get
'Whenever, however much is said, that much they will definitely get.'

4) (DB)jitlo likle (IB)hutlo likuk houay.
however much when write that much to write it will become
'Whenever, however much is written, that much will be written.'

5) (DB)j6s6n k6male (IB) us6n khator ay.
however when farm like that eating it is
'Whenever, however a person farms, then just like that they will eat.'

2. Coordinate and Alternative Constructions in Dependent Bases.

2.1 Coordinate Constructions.

Combination of Specific and General Sequence Dependent Bases. These two dependent bases—the specific sequence signalled by the -un suffix and the general sequence signalled by the ALE relator—are juxtaposed in a loose coordinate-sequence relationship to each other, but each maintaining its peculiar relationship to the one independent base.

1) (DB 1)pani marun (DB 2)dhan 6k6rli ale (IB)biasi
water having hit paddy rice it sprouted when a small

maruat.
plough they will hit
'After it's rained, when the paddy has sprouted, they will plough with the biasi plough.'

2) (DB 1)mo:Dea pisan ghorun bhati (DB 2)pase uk6Rli jale
millet flour having mixed after later it boiled when

(IB)utrator ay.
causing to descend it is
'After having mixed the millet flour, when it's boiled, it is to be taken off the fire.'

Combination of Specific Sequence and Simultaneous Dependent Bases. Similar to the above, specific sequence is signalled by the suffix -un while simultaneous action is signalled by -to ke. These, as well, are in a loose coordinate-sequential relationship to each other, each maintaining its peculiar relationship to the independent base.

1) (DB 1)kukRa basto ke (DB 2)nikrun bati janu (IB)raja
cock crowing at having come out after part. king

ete ilo.
coming he came
'At the time of the cock's crowing, (and) after having departed. the king came quickly here.'

2) (DB 1)din bhor roun bati (DB 2)s6:j hoto ke
day throughout having stayed after evening becoming at

(IB)gh6re ilu.
house to we came
'After having stayed the whole day, at the time it became

evening, we came home.'

Double Conditional Specific-Generic Dependent Bases. In this combination, conditional bases are conjoined in a coordinate relationship to each other and with a specific-generic meaning. However, each base maintains a temporal conditional relationship to the independent base. This type is different than the above in that a linking morpheme AUR 'and' can occur joining the conditional bases. Note also in the following two examples the Quotation Sentence embedded in the IB of the Temporal Conditional sentences.

1) (DB)[khub buta k6rlene aur kay kay k6rlene] (IB)hun
much work when perform and what what when perform that

ke 6cha s6hralase boluat.
OM good they have done praiseworthily they will say
'When a person does his work well and whatever it may be (that is done well), they will say to that, "He has performed praiseworthily."'

2) (DB)[naha dhoa ni hole ka:y ci ni hole]
bathing not when become anything just not when become

(IB)hun ke 6Dra ay boluat.
that OM unclean he is they will say
'When someone doesn't bathe and when he just won't do anything, they will say to that, "He is unclean/dirty."'

2.2 Alternative Constructions.

Combination of Specific-Generic and Alternation. Similar to but distinct from the coordinate constructions is the combination of dependent clauses into an alternating relationship with a specific-generic meaning. The resulting constructions embed in the dependent base of the Topic-Comment Sentence or of the Generic Temporal Conditional Sentence. There are several features of interest which apply to this type when embedding in the Topic-Comment Sentence: a) the linking morpheme ki/kay 'or' may optionally occur between the clauses; b) when the ALE relator is used, it is not repeated with each clause but occurs only once at the end of the list; c) several clauses occur as choices; and d) a specific-generic relationship encodes across the dependent clauses although the generic clause may optionally be deleted.

1) (DB)[kay calis rupea ay kay n6be ay kay kitro ay]
or forty rupees it is or ninety it is or how much it is

jale (IB)boRe mo:d co poysa deuat.
when big wine of money they will give
'Whether it is rupees forty or ninety or however much it is, they will give the money for the "Big Wine" ceremony.'

2) (DB)[ber hoo bad6r hoo ka:y hoo](IB)tumco
[sun it may be cloud it may be anything it may be] you of

gh6re d6kuk euau:.
house to to see we will come
'Whether it is sunny, or cloudy, or whatever it may be, we will come to your house to see (them).'

3) (DB)[dui Than rohot kay tin Than rohot] ale (IB)gida
[two thirg they were or three thing they were] when eaglet

ke apTun dili.
OM having turned out she gave
'Whether there were two or three, she turned the eaglets out (of the nest).'

4) (DB)[DhuTi hoo ko:Di hoo kay n6ki
[fish basket it may be little pot it may be or aluminium pot

hoo](IB)beRa baTe neuat.
it may be] field way in they will take
'Whether it is a fish basket or a little pot or an aluminium pot, they will take it to the fields.'

5) (DB)[kay dui moyna ay kay tin moyna ay] ale (IB)hun
[or two month it is or three month it is] when that

16ge rola.
place in they were
'Whether it was two months or three months, they were at that place.'

6) (DB)[bimar holi ki kay holi] ale (IB)6sp6tal nila.
[sickness it became or what it became] when hospital they

took
'Whether it is sickness or whatever it is, they took her to the hospital.'

7) (IB)jae:de bua (DB)[kiRa hoo thapa hoo]
I will go Father [insect it may be grasshopper it may be]
'Whether it is an insect or a grasshopper, I will go Father (in order to marry it).'

8) (DB)[kay koni log nila kay bilhi: khadli kay pokay
[or any people they took or cat it ate or thrown out

holi kay kukur khadli] ale (IB)hun biti ni ay.
it became or dog it ate] when that thing not it is
'Whether someone took it or a cat ate it or it became thrown

out or a dog ate it, that thing is not here.'

When the specific-generic alternating construction embeds in the Generic Temporal Conditional Sentence the following features apply: a) the linking morpheme nahle 'otherwise' will occur between the clauses; b) several clauses occur as choices;[10] c) a specific-generic relationship encodes across the bases although the generic clause is deleted in the following examples.

1) (DB) kukur ke nahle boyla m6n ke sog k6rlene (IB)hun
dog OM otherwise bull pl. OM love when perform that

ke sog k6rlo boluat.
OM love he performed they will say
'When a person takes good care of a dog or bull (or any animal), people will say to that, "He took care of them."'

2) (DB) deo ke nahle raja ke nahle bh6gwan ke pa:y poRlene
spirit OM otherwise king OM otherwise God OM foot when fall

(IB)hun ke pa:y poRlo boluat.
that OM foot he fell they will say
'When a person worships a spirit, or the king, or else God, then people will say to that, "He worshipped."'

E. Distribution.

In Halbi, sentences combine to form paragraphs and fulfill specific functions in other higher levels in the hierarchy. Many sentences appear to have a very restricted distribution within these higher levels. However, a complete description must wait until an analysis of Halbi paragraph and discourse have been undertaken.

Extensive recursive embedding of one sentence type within another occurs very frequently in Halbi. This recursive embedding, according to Longacre (1968), is a distinguishing feature of the sentence as a legitimate level within the grammatical hierarchy.

Exhaustive studies of this feature of recursive embedding in Halbi have not, as yet, been undertaken. However, in the following pages are some examples of what has been observed. Also included are examples of backlooping that may occur.

1. Chronological.

1.1 Specific Sequence Sentence.

The Specific Sequence Sentence may embed: a) in the independent base of the Generic Temporal Conditional Sentence.

1) (DB)s6tra s6tri role (IB)[pher boRe da:y
father in law mother in law when is [again big time

uThun k6rtor ay.]
having arisen performing it is]
'When there are in-laws, one must arise early and work.'

b) in the independent base of the Purpose- Result Sentence.

2) (DB)m6cri dh6rto kaje (IB)[haT le sut ghenun
fish taking hold for [market from thread having purchased

antor ay.]
bringing it is]
'For netting fish, thread is to be purchased and brought from the market.'

c) in the IBase 1 of the Negated Antonym Sentence.

3) (DB 2)tumi hi:Duk ni s6kas (IB 1)[ph6T ph6Ti ne
you to walk by foot not you can [motorscooter on

cegun jau6has.]
having climbed you will go]
'You are unable to go by foot, you will go by motorscooter.'

d) in IBase 2 of the Identity-Contrast Sentence.

4) (IB 1)janlo log binuat (IB 2)[ni janlo log ghenun
known people they will weave [not known people having

phi:duat.]
purchased they will wear]
'The people who know (how to weave) will weave (but) the people who don't know will buy and wear.'

e) in IBase 2 of the Reason-Result Sentence.

5) (IB 1)morlo (LK)gune (IB 2)[may beTi nikrun
he died therefore [mother daughter having come out

ilase.]
they have come]
'The man died therefore the mother and daughter departed and have come here.'

1.2 Coterminus Sentence.

The Coterminus Sentence may occur embedded in IBase 1 of the

Contra-Expectation Sentence.

1) (IB 1)[kukur ke mor6tle marte roe] (IB 2)ni more.
[dog OM die until complete hitting he was] not it dies
'He was beating the dog to death but it didn't die.'

1.3 Simultaneous Sentence.

The Simultaneous Sentence backloops to manifest a clause level function. Here it fills the axis of an axis-relator clause which in turn fills DBase 1 of the Contra-Factual Sentence.

1) (DB 1)[tumi ghana k6rto bera etas]
[you sugar cane crusher performing time you would come]

jale (DB 2)Da:Da gur r6s khau rotas
when sugar cane raw sugar juice having eaten you would

be
'If you would've been here during the sugar-cane crushing you would've eaten sugar-cane, raw sugar, and sugar juice.'

2. Cause-Effect.

2.1 Conditional Alternative Sentence.

The Conditional Alternative Sentence may embed: a) in the independent base of the General Sequence Sentence.

1) (DB)bimar holi ale (IB)[sirha deo bosuay nahle
sickness it became when [shaman spirit he will sit other-

gunea caur basuay.]
wise diviner rice he will separate]
'When sickness occurs the shaman will call the spirits or else the diviner will separate the rice grains (to find out what is wrong).'

2) (DB)bai m6n ila ale (IB)[amke poysa deuat nahle
lady pl. they came when [we OM money they will give other-

bhat sag khoauat.]
wise cooked rice curry type they will feed]
'When the ladies come they will give us money or else they will feed us rice and curry.'

b) in the independent base of the Specific Sequence Sentence.

3) (DB)gham ne sukaun (IB)[pase tin tag nahle car
sunshine in having dried [later three length otherwise four
tag hiTator ay.]
length taking off it is]
'Having dried (the thread) in the sun, later three or four lengths are to be taken off.'

2.2 Conditional-Consequent Sentence.

The Conditional-Consequent Sentence may embed in the independent base of the Topic-Comment Sentence.

1) (DB)koni thane hoo (IB)[bayle ase ale D6g6r jae:se.]
any place in it may be [wife she is if search I am going]
'Wherever it may be, if there is a wife (there) I am searching for her.'

2.3 Generic Temporal Conditional Sentence.

The Generic Temporal Conditional Sentence may embed: a) in the independent base of the Topic-Comment Sentence.

1) (DB)koci hoo (IB)[beRa ne tiarle jator ay.]
whoever it may be [field in when ready going it is]
'Whosoever it may be, when (their) field is ready (for weeding) people are to be going there to work.'

b) in IBase 1 of the Conditional Alternative Sentence.

2) (IB 1)[daul m6ti rani dilene neua:y](LK)nahle (IB 2)
[Daul M6ti Queen when give I will take] otherwise
mo:y ni nee:.
I not I take
'If Queen Daul M6ti gives it, I will take it otherwise I won't take it.'

3) (IB 1)[g6R b6R s6R b6R hole 6sp6tal ne neuat
[trouble and difficulties when become hospital to they will
take] (LK)nahle (IB 2)neunuat.
otherwise they will not take
'When difficulties occur (at childbirth) they take them to the hospital otherwise they won't.'

c) in the independent base of the Positive Echo Question Sentence.

4) (IB)[dhan hole kaTuk lagse](DB)a:y?
[paddy rice when become to cut you will stick] isn't that so

'When the paddy rice is ready you will require it to be cut, won't you?'

The combination Proportional Comparison plus Generic Temporal Conditional may embed in the independent base of the Topic-Comment Sentence.

5) (IB)[je sag cuRu role hun sag
whatever curry type having prepared when is that curry type

deuat] (DB)m6cri hoo go:dri hoo.
they will give] fish it may be onion it may be
'Be it fish or onions, whatever curry they prepare, that curry they will give us.'

2.4 Purpose- Result Sentence.

The Purpose- Result Sentence may embed: a) in the independent base of the Generic Temporal Conditional Sentence.

1) (DB)leki hole (IB)[6sni kosa ba:dto kaje kes
girl when become [like this hairbun tying up for hair

bacator ay.]
causing to leave it is]
'When there's a girl, the hair is to be left to grow long for the purpose of tying a bun.'

b) in IBase 2 of the Identity-Contrast Sentence.

2) (IB 1) m6nuk m6n ni eot (IB 2)[bayle pila m6n euat
man pl. not they come [woman child pl. they will come

khato kaje.]
eating for]
'The men don't come, only the women and children come for eating.'

3. Disjunction.

3.1 Alternative Question Sentence.

The Alternative Question Sentence may embed in the independent base of the Disclaimer-Conjecture Sentence.

1) (DB)kon janlose (IB)[e baTe k6rbuja mirede
who he has known [this way in watermelon it will be avail-

ki nai.]
able or not is]
'Who knows whether watermelons will be available or not.'

In the above example, the occurrence of the rhetorical question in the dependent base changes the interrogative quality of the embedded sentence and makes it a statement of alternation.

4. Restatement.

4.1 Negative Specific-Generic Sentence.

The Negative Specific-Generic Sentence may embed in IBase 2 of the Negated Antonym Sentence.

1) (IB 1)mur mure holahas (IB 2)[goTheauas nai
upset you will become you will converse not is
ka:y nai.
anything not is]
'You will become upset, you won't converse or anything.'

5. Coupling.

5.1 Descriptive Listing Sentence.

The Descriptive Listing Sentence may embed in the independent base of the Simultaneous Sentence.

1) (IB)[gh6n uTe gh6n bose] (DB)deo
time and again he arises time and again he sits spirit
cegto bera.
climbing time
'Again and again he arises and he sits during the time of possession by the spirits.'

5.2 Conjoined Sentence.

The Conjoined Sentence may embed: a) in the independent base of the Simultaneous Sentence.

1) (DB)rat hoto ke (IB)[cha:Dlu aur gh6re ilu.]
night becoming at we freed and house to we came
'At the time of becoming night, we freed the animals and came to the house.'

2) (DB)Tekun deto ke (IB)[geli aru bel ruke
having touched giving at she went and tree type tree in
cegli.]
she climbed
'At the time of touching (the animal), she went and climbed a bel tree.'

b) in IBase 2 of the Reason-Result Sentence.

3) (IB 1)tui gelis (LK)gune (IB 2)[m6ke bhat pej
you you went therefore I OM cooked rice gruel

ra:dala aru khate khadla.]
they caused to prepare and eating they ate]
'You left therefore they forced me to cook their meals and
they gobbled down the food (without giving me any).'

c) in IBase 2 of the Contra-Expectation Sentence.

4) (IB 1)gay cheri bole hun baTe khedun ni ne bollu
cow goat also that way in having chased not take! we said

(EMPH)mant6r (IB 2)[ni manli aur khedun nili.]
emph. not she obeyed and having chased she took]
'We said, "Don't chase the cattle in that direction," but
she didn't obey and she chased them there.'

d) in the independent base of the Cause-Effect Sentence.

5) (DB)k6s6n k6run (IB)[morauau:be aur hunco bayle ke
what having performed we will kill and that of wife OM

anuau:be?]
we will bring]
'What's to be done so that we can kill him and bring his wife
here?'

e) in the independent base of the Topic-Comment Sentence.

6) (DB)ber hoo bad6r hoo (IB)[Dokri ra:d aur dhire
sun it may be cloud it may be Old Woman cook! and slowly

dhire bole an.]
slowly also bring!]
'Whether it be sunny or cloudy, Old Woman, cook food and bring
it carefully to me!'

f) in DBase 2 of the Contra-Factual Sentence.

7) (DB 1)ami aji biane boRe da:y uTtu ale (DB 2)
we today morning in big time we would arise when

[boRe da:y jhaTi gaRa netu aur jh6pke gh6re
big time cart type ox cart we would take and quickly house

etu.]
to we would come]

'If we would've arisen early this morning we would've taken the jhati cart and we would've quickly returned.'

6. Complementation.

6.1 Quotation Sentence.

The Quotation Sentence may embed: a) in IBase 1 of the Reason-Result Sentence.

1) (IB 1)[aji hun noni ni ja ai bolli
today that Noni not go! Grandma she said] (LK)tebe
therefore

(IB 2)ni gele.
not I went
'Today Noni said, "Don't go Grandma," so I didn't go.'

b) in the independent base of the Generic Temporal Conditional Sentence.

2) (DB)nani biti holene (IB) car rupea a:T ana dee:de
small thing when become four rupees eight anna I will give

boltor ay.
saying it is
'When it is a small hen, one should say, "I will give four and a half rupees."'

The Quotation Sentence backloops to manifest a clause level function. Here it fills the axis of an axis-relator clause which in turn fills the dependent base of the Concessive Sentence.

3) (DB)[mas m6cri ni khaha bollo
meat fish not eat! he said] ale bole (IB)ami khau:se.
although we we are eating
'Although he said not to eat meat and fish, we are eating them.'

Abbreviations.

Box 1

DB	dependent base
IB	independent base
LK	link
FIN	final

Box 2

A-R	axis-relator
Cl	clause
Cj	conjunction
Cjv	conjunctive
Dep	dependent
Disc	discourse
Form	formulaic
Ind	independent
Para	paragraph
Ph	phrase
Rhet	rhetorical
Qn	question
Sen	sentence
wd	word
red.	reduced
trunc.	truncated

Box 4

Alt	alternating
Altv	alternative
Condn	condition
Condl	conditional
Conj	conjoined
Conjt	conjecture
Conc	concessive
Conn	connector
Conseq	consequent
Contr	contra
Desc	descriptive
Discl	disclaimer
Ev	event
Expect	expectation
Foll	following
Factl	factual
Iden	identity
Magnf	magnification
Piv	pivot
Prop	proposition
Proport	proportional
Quant	quantifying
Qn	question
Rsn	reason
Rslt	result
Sett	setting
Seq	sequence
Sp	specific
Stat	statement

Temp	temporal
Unfulfil	unfulfilled
Wit	witness

Box 5

complt	completed
decl	declarative
interrog	interrogative
neg	negative
pos	positive
P_i	same Predicate in both clauses
S_i	same Subject in both clauses.
real	realized
simult	simultaneous
unreal	unrealized

Other

AFTH	aftherthought
att.	attention
cont.	continued
EMPH emph	emphatic
exclam.	exclamation
OM	object marker
part.	particle
pl.	plural
rel.	relator
RDM	responsibility disclaimer marker
STOP	sentence topic
SETT	setting (time)
[ ]	indicate embedded sentences or constructions

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Footnotes.

[1] *ale* occurs with sentences in the interrogative mood, while *ede* occurs with sentences which are explanatory in nature.

[2] The twenty-nine sentence types posited in this paper are not necessarily exhaustive and other types no doubt exist.

[3] The relator *BATI* has two forms—*bati* and *bhati*. *bati* is used by men and boys, while *bhati* is used by women and girls.

[4] The relator *ALE* consists of two forms—*ale* and *jale*. *ale* is used by men and boys, while *jale* is used by women and girls.

[5] The suffix -T6LE has two forms: -6tle and -tle. When a verb stem ends in a consonant then the suffix form will be -6tle as in hi:D-6tle 'until completed walking by foot.' When the verb stem ends in a vowel then the suffix form becomes -tle as in ro-tle 'until completed staying.'

[6] The suffix -T6TLE has two forms: -t6t6le and -tt6le. When a verb stem ends in a consonant then the suffix form will be -t6t6le as in nac-t6t6le 'dancing and until completed.' When a verb stem ends in a vowel then the suffix form will be -tt6le as in ho-tt6le 'becoming and until completed.'

[7] The suffix relator -LENE has two forms: -lene and -le. -lene is used by men and boys, while -le is used by women and girls.

[8] The conditional alternating link nahle 'otherwise', may also occur with some of the examples.

[9] On checking with the language assistants it was found that in sentences expressed in active voice and declarative mood, the negated base was more acceptable as 'good Halbi' if aorist endings occurred on the verb.

[10] A feature of the Conditional Alternative Sentence is the optional deletion of the same predicates from all bases except the final base.

INDEX TO HALBI

A. Introduction. 35

B. General Structure of the Halbi Sentence 37

- 1. Characteristics of the Sentence Nucleus. 38
- 2. Characteristics of the Sentence Periphery. 39
- 2.1 General Periphery 40
- 2.2 Specialized Periphery 41
- 3. Semantic Structure Tree. 42
- 4. Grammatical Structure Tree 43

C. Contrastive Sentence Types. 48

- 1. Chronological. 49
- 1.1 Specific Sequence 49
- 1.2 General Sequence. 51
- 1.3 Coterminus. 53
- 1.4 Simultaneous. 55
- 2. Cause-Effect 57
- 2.1 Contra-Factual. 57
- 2.2 Conditional-Alternative 60
- 2.3 Conditional-Consequent. 61
- 2.4 Cause-Effect. 63
- 2.5 Generic Temporal Conditional. 64
- 2.6 Contra-Expectation. 67
- 2.7 Concessive. 68
- 2.8 Purpose-Result. 70
- 2.9 Reason-Result 72
- 3. Disjunction. 74
- 3.1 Alternative Question. 74
- 3.2 Alternative 76
- 4. Restatement. 78
- 4.1 Positive Echo Question. 78
- 4.2 Negated Antonym 80
- 4.3 Negative Specific-Generic 82
- 4.4 Magnification 83
- 4.5 Positive Specific-Generic 85
- 5. Coupling 86
- 5.1 Identity-Contrast 87
- 5.2 Antithetical. 89
- 5.3 Descriptive-Listing 91
- 5.4 Conjoined 93
- 6. Complementation. 95
- 6.1 Disclaimer-Conjecture 95
- 6.3 Topic-Comment 100
- 6.4 Witness-Fact. 102
- 6.5 Quotation 103

D. Sentence Combination. 105

- 1. Simultaneous Double Encoding 105
- 2. Coordinate and Alternate Constructions in Dependent Bases. 107
- 2.1 Coordinate Constructions. 107
- 2.2 Alternative Constructions 108

E. Distribution 110

- 1. Chronological. 110
- 1.1 Specific Sequence 110
- 1.2 Coterminus. 111
- 1.3 Simultaneous. 112
- 2. Cause-Effect 112
- 2.1 Conditional Alternative 112
- 2.2 Conditional-Consequent. 113
- 2.3 Generic Temporal Conditional. 113
- 2.4 Purpose-Result. 114
- 3. Disjunction. 114
- 3.1 Alternative Question. 114
- 4. Restatement. 115
- 4.1 Negative Specific-Generic 115
- 5. Coupling 115
- 5.1 Descriptive Listing 115
- 5.2 Conjoined 115
- 6. Complementation. 117
- 6.1 Quotation 117

Abbreviations 117

References 119

Footnotes 120

Sentence Patterns in Kupia

R.B. and J.E. Christmas

A. Introduction.

1. General.

The Language. The Kupia language belongs to the Indo-Aryan family of languages. It is spoken in the Munchinput, Aruku, and Paderu Blocks of Visakhapatnam District, Andhra Pradesh, and in the adjacent Koraput District of Orissa, India.

The people who speak the language are called Valmiki people. Some claim they descend from the famous poet Maharsi Valmiki. Valmiki people belong to the Valmiki Scheduled Tribe of India.

The word Kupia does not occur in the 1961 census of India. The word Valmiki does occur, and is recorded as the name of a language spoken by eight people living in Andhra Pradesh State but not in Visakhapatnam District. We have chosen the name Kupia instead of Valmiki since the people themselves refer to their language as Kupia. It was evident during the 1971 census, that the people whose mother tongue is Kupia gave the regional language, Telugu, as their mother tongue. We consider that at least 6,000 people have Kupia as their mother tongue.

The work, The Scheduled Tribes of Andhra Pradesh (1963) records of the Valmiki people, "They speak a corrupt form of Oriya[1]." As far as we are aware, no study of any depth has been made in the Kupia language.

Our judgment that Kupia is an Indo-Aryan language is based on comparative vocabulary and grammar studies. However, since many of the speakers are living in Andhra Pradesh, where Telugu is the regional language, there are many Telugu loan words in the language. These are from Dravidian roots, or Indo-Aryan roots having come via Telugu (a Dravidian language). A few words have a clear English origin.

Research Details. This paper is a study on the sentences of Kupia as spoken by the people of the village of Sujanakota, Munchinput Block, Andhra Pradesh, India. During the past three years the authors have spent approximately eight months actually living in the village. For a further nine months language helpers have been readily available. During the months of January and February 1972, R.B. Christmas attended a workshop held on the campus of Andhra University under the joint auspices of the Andhra University and the Summer Institute of Linguistics. During these months analysis was begun on Kupia sentence structure.

Two language helpers have assisted us during most of this period, others helping in occasional checking. These are Mr. G. Kamiswarao, about 25 years of age, and Mr. G. Surayya, about 20 years of age. Both are Valmiki Scheduled Tribal men of Sujanakota village. Mr. Samma Reddi Rajayya, and an elderly lady, Kamesili, gave us several texts which we have recorded. These stories, as well as those told by the above named language helpers, have provided a valuable source of language material.

Analysis Model. Tagmemic theory as conceived by Kenneth L. Pike in his book, *Language in relation to a unified theory of the structure of human behavior*, (1967) and further developed by Pike, Robert E. Longacre, and other tagmemicists, provides the theoretical base for this work.

Content of the Paper. The paper has three parts: a) a description of sentence periphery; b) a description of the 23 sentence types posited for Kupia—the main emphasis; and c) a description of operations at sentence level. Illustrative examples are given throughout the paper, using the Kupia phonemes which are shown in Figure 1.

Consonants:

	labial	dental	alveolar	velar
stops	p	t	T	k
	b	d	D	g
affricates			c	
			j	
fricative			s	
nasals	m	n		ng
flap			r	
lateral			l	
semivowels	w		y	

Vowels:

	front	central	back	
high	i		u	/nasalization/*
mid	e		o	/length/**
low		a		

*Nasalization is phonemic and occurs on all vowels. It is symbolized by a colon after the vowel (v:).
**Length is phonemic and occurs on all vowels. It is symbolized by doubling of the vowel (vv).

Figure 1. Kupia Phonemes

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e) The help of computers. The IBM 1410 computer at the University of Oklahoma processed 112 pages of type-written texts and arranged it into a concordance. Each word in the text was alphabetized and listed down the center of the page of the concordance as often as it occurred in the text, with context on either side. This concordance was of immense help in syntactic analysis. It was made possible by the Linguistic Information Retrieval Project of the Summer Institute of Linguistics and the University of Oklahoma Research Institute, sponsored by Grant No. GS-1605 of the National Science Foundation.

2. Sentence Theory.

What is a sentence? In the following paragraphs we propose to answer this question.

2.1 Hierarchy and Sentence.

In his definitive work, *Language in relation to a unified theory of the structure of human behavior*, Pike, (1967:79), speaking about hierarchical structures, states, "...smaller emic wholes may be viewed as parts of larger emic wholes, which in turn are parts of still larger ones...." In Kupia we posit clause, sentence, and paragraph—among others—as emic wholes in ascending order in the hierarchy.

In the nine box descriptive system of a unit, Pike (1971), considers grammatical, semantic, and phonological modes to be basic. We need to be able to refer to all three of these in our description of an emic unit. That is, we wish to define sentence with reference to criteria from the grammatical, semantic, and phonological modes.

Level in hierarchy \ Mode	grammatical	semantic	phonological
paragraph			
sentence	▨	▨	▨
clause			

Figure 2. Hierarchical Position and Modal Relation of Sentence.

Grammatical Mode. Following Pike and Longacre[2], we recognize the sentence as a construction between clause and paragraph in the grammatical hierarchy. Although there are sentences consisting of only one clause and an optional periphery, sentences are typically combinations of clauses. Clauses may be combined in subordinate constructions as participial clause to main clause or axis-relator clause to main clause. Clauses can also be combined in coordinate constructions by simple parataxis or by means of a medial link.

In this paper we are calling a unit consisting of only one independent clause and an optional periphery, a Simple sentence. Other then this, however, Simple sentence is not discussed further.

Semantic Mode. A semantic unit, a building block of the sentence, is referred to as a proposition. A proposition is a single event or state typically having at least one actor and an action or one statant and a state. There are propositions, however, which are mere events with no actors or statants. Illustrative of this type of proposition is the Parengi udu?may 'eveninged' or 'it became evening.' A proposition may have several participants but allows only one event or state. Participants may or may not occur overtly in the surface structure.

Propositions in this paper are viewed as the semantic building blocks of the sentence. We have limited our study to sentences containing at least two propositions. In each sentence the propositions must have a stateable relationship between them.

Grammatical and Semantic Modes. The semantic definition, however, cannot be taken alone as being sufficient. The following examples exemplify this, by showing what a sentence is not.

1) patral tenu anne DanDo tenu suunoka peTinde.
   stones with and stick with dog to I will hit
   'I will hit the dog with stones and with a stick.'

In this example we have two propositions, patral tenu suunoka peTinde 'I will hit the dog with stones' and DanDo tenu suunoka peTinde 'I will hit the dog with a stick.' These, because of ellipsis, encode grammatically as a clause or a simple sentence having a coordinate construction in the instrument slot. By this we claim that a clause may coordinate any of its constituents and still remain a single clause, with the exception of the predicate. When the predicate is coordinated so is the clause and so is the proposition. The predicate then, and its attending constituents which nucleate around it, is central to both the clause and the proposition. Within the sentence clauses and propositions occur in a one-to-one relationship.

Some may object to this criterion as arbitrary saying that two separate actors make two separate actions. This argument has force if we are only considering the semantic mode. We acknowledge the presence of two propositions in such a construction, but surface structure dictates that we analyze the construction as a single clause with a coordinate subject. Recognizing the predicate as central to the clause and the proposition, we must analyze every occurrence of a separate predicate as a separate clause and a separate proposition.

So our semantic analysis must always be coupled with our grammatical analysis. Meaning can never be separated from form in natural language.

Clause-level Functions. Further, we have chosen to treat the following relationships as being below sentence, not because there are not two clauses and two propositions involved, but because one clause is merely manifesting a clause-level function which is usually manifested by a phrase.

Independent clause plus relative clause constructions.
Independent clause plus direct and indirect speech constructions.
Independent clause plus comparative of manner constructions.
Independent clause plus comparative of degree constructions.
Independent clause plus purpose clause constructions.

Paragraph Relationships. Furthermore, some propositions are seen to be in a recognizable relationship but they encode as paragraphs.

2) (S1)werri negele penDli jaye nay (S2)penDli
mad not go if marriage becoming not marriage

nejale werri gese nay.
not becoming mad going not
'If you don't go mad, you won't become married; if you don't become married you won't go mad.'

In example 2 we note that a sentence is the exponent of both bases. Indeed for the biconditional relationship in Kupia the minimum exponent of each base is a Conditional/Temporal-Result A sentence. Our definition of a sentence as a layer of *clause* combination—and not sentence combination—requires that the biconditional relationship be considered then at paragraph level.

Sentence Length. We are not tempted to consider just sheer length as a parameter to distinguish between levels in the hierarchy. Tagmeme (clause) sequences occurring in a serial or non-hierarchical fashion (say coordinate, alternative, or additive) remain in the level of sentence, however long.

3)

(B1)kaTmandu	caala	welli	gaa:wu	(B2)dekuka	chala	sardaga	ase;
Kathmandu	very	big	village	see to	very	happiness	is

(B3)caala	goppa	goppa	wudyogastulu	asti;	(B4)goppa	goppa
very	great	big	important people	are	great	

goppa	andumayinaTuvanti	wastuwulu	kuuDanu	asti.
valuable	nice	goods	also	are

'Kathmandu is a big town, to see it brings much happiness, many very important men are there and a lot of very nice goods are also there.'

From the speaker's point of view the propositions of bases 2, 3, and 4 are all specifics of the generic idea of, 'a very big village.' That is, the independent clauses B1, B2, B3, and B4 are held together by a common semantic relationship. Furthermore, the use of kuuDanu 'also (included)' shows the unity of the propositions.

Phonological Mode. Reid (1970:6), has listed the following rules for determining the boundary between grammatical sentences as opposed to phonological ones.

"(1) Two clauses, whether phonologically bound or not, form all or part of one grammatical sentence if there is a link (e.g., a conjunction) present functioning on the sentence level.

"(2) Two clauses phonologically bound, form all or part of one grammatical sentence where no such link is present but one can be plausibly supplied.

"(3) Two clauses not phonologically bound (i.e., separated by final sentence intonation), form all or part of two grammatical sentences where no link is present, even though a link may plausibly supplied.

"(4) Two clauses, whether phonologically bound or not, form all or part of two grammatical sentences where a link is present whose function is to link structures higher than the sentence level.

"(5) Two clauses, whether phonologically bound or not, form all or part of two grammatical sentences when there is no link present and none can be plausibly supplied."

These criteria have been used as a guide in the preparation of this paper and are generally applicable. However, the emphasis in this work has been on semantic relationships and grammatical encodings, and only secondarily on phonological criteria. We differ from Reid in point 5, in that the propositions of the Question-Response relationship are considered to encode as a sentence in spite of the fact that phonological indications suggest two simple sentences.

Summary. Our main emphasis has been a description of the grammatical and semantic relationships among sentences in Kupia. To this extent we have been more concerned with a definition of sentence determined by grammatical and semantic criteria, and to a less extent concerned with a definition of sentence determined by phonological criteria.

2.2 Tagmemes in Multi-propositional Sentences.

Dependent and Independent. The distinction dependent vs. independent is of primary importance in the description of the sentence. In this paper a clause or proposition is termed dependent if it has a subordinating relator or participle, or if it contains a word which makes it dependent. Hence all axis-relator and participial constructions are dependent. Also constructions like the following are dependent:

4) *dekitadi* 'You would have seen'

5) *teddi deyinde* 'That much I will give'

In examples 4 and 5, some predetermined knowledge is required in order to make the construction meaningful. The suffix *-tadi* 'would have' and the word *teddi* 'that much' made the propositions subordinate.

In this paper we have used the following rule for determining dependent versus independent status of a clause: If the clause is dependent upon another part of the sentence of which it is a part for its meaning, it is dependent. If it depends merely on the context in discourse, near or remote, for its meaning, it is independent. For example we consider 'He saw the man' is independent since 'He' refers to a previously mentioned dramatis persona in the discourse, but not obligatorily in the same sentence. However, we consider 'That much I will give' dependent because 'that much' is a correlative word requiring an antecedent pro-word within the same sentence.

Sentence Level Tagmemes. Four contrastive tagmeme types occur in the nucleus of multi-propositional sentences in Kupia. (Note here that we are making the distinction *peripheral* vs *nuclear* in sentence structure and saying thereby that margins are not peripheral, but *distinctive* constituents of each sentence type.)

	AR Sen
MAR	AR Cl
Prop	

BASE	In Sen In Cl
Prop	

D BASE	D Sen D Cl
Prop	

LINK	conj construction conj particle
Conj	

These tagmemes are set up on the following premises:

a) All axis-relator and participial constructions are dependent and fill margin tagmeme slots.

b) Margin tagmemes have a minimum of restriction on an independent base tagmeme with which they function. However, when relating to a dependent base tagmeme there is heavy restriction in that the two are mutually dependent. See example 6.

6) (M)tuuwi ayile (DB)dekitam.
you come if seen we would have
'If you had come, we would have seen.'

c) Base tagmemes are independent both grammatically and semantically.

d) Dependent base tagmemes are dependent both grammatically and semantically. A dependent base tagmeme is always accompanied by a margin, dependent base, or independent base tagmeme to form a sentence.

e) In Kupia sentences consisting of only two bases and one link; the link tagmeme always occurs between the bases.

f) Box 2 labels are general. Thus when independent clause occurs in box 2 of a tagmeme formula, this means that an example with an independent clause has been cited; it does not mean that all of the independent clause types posited for Kupia have been found to occur, or are thought to occur in the tagmeme slot. Nevertheless, where restrictions are thought to occur, they have been stated.

2.3 Sentence Construction.

Sentences are made up of strings of the contrastive tagmeme types just mentioned. However, there may be recursion as in the following:

7) (B)jo maansu gullo laTabe nay (L)gani (B)sangile suuntayi.
that man dumb speak not but say if he hears
'That man is dumb, he cannot speak but if someone speaks he can hear.'

In example 7, a Negated Antonym sentence is the exponent of the first base and a Conditional/Temporal-Result Sentence A is the exponent of the second base of an Antithetical sentence. That is, embedded sentences occur in both bases.

The paper handles, primarily, what may be called the 'norm' of the particular sentence type (without embedding). Where complex constructions have been found to fill the tagmeme slots, and these are of interest, examples are given. Such examples are not considered 'norms.'

Norm sentences are of the following forms, tagmemes being identified by box 1 labels.

Independent sentences	MAR + BASE
	MAR + D BASE
	BASE + BASE
	BASE + BASE + BASE^n
	BASE + L + BASE
	BASE ± L + BASE
	BASE ∓ L + BASE ± $(\text{L+BASE})^n$
	BASE ± L + D BASE
	D BASE + D BASE
	D BASE + L + D BASE
Dependent sentences	MAR + BASE

The above eleven forms are the grammatical encodings that have been found for the 23 contrastive sentence relationship types posited for Kupia.

2.4 Sentence Subtypes.

In some cases propositions in Kupia may have a common semantic relationship, but they may have different grammatical encodings. We are calling the different encodings subtypes.

Similarly, in some cases the propositions of one sentence may have the same grammatical encodings as the propositions of another, but the semantic relationship between the propositions in each case may not be the same. These we are also calling subtypes.

2.5 Sentence Contrast.

To be contrastive, ordinarily two sentences must have at least one grammatical and one semantic difference. We reserve the right, however, to set up sentences (as types) which appear to be contrastive, but for which insufficient evidence is presently at hand.

It is our belief that the sentences of a language have some formal organization in the speaker's mind. Language must have system and arrangement. We wish to show the grammatical and semantic organization of the 23 sentence types posited for Kupia along with the sentence contrast material.

Grammatical Contrast. Figure 3 shows the 23 sentence types posited listed in the left hand column under broad semantic relationship divisions. The horizontal axis shows the grammatical encodings of the sentence types and their subtypes. Referring to the chart, we say that sentence types which encode in separate columns are considered to be contrastive grammatically. This is, if any column has one or several sentence types occurring in it, that or those sentence types contrast grammatically with the sentence types in all other columns.

We therefore initially cull out those types which are the only type occurring in a column and call these contrastive. These include the following:

1.1b	Antithetical B	column no. 6
1.1c	Antithetical C	10
2.2	Alternative Consequent	8
3.6	Proportional 2	9
3.8	Dep Negative Conditional	11

Grammatical Encoding / Sentence Type	1 MAR + BASE	2 MAR + D BASE	3 BASE + BASE	4 B + B + B^n	5 B + L + B	6 B ± L + B	7 B + L + B ± $(L+B)^n$	8 B ± L + DB	9 DB + DB	10 DB + L + DB	11 MAR + BASE
Conjunction											
Coupling											
1.1 Antithetical 1.1a, 1.1b, 1.1c					A	B				C	
1.2 Exhaustive			X								
1.3 Additive				X							
1.4 Conjoined							X				
Restatement											
1.5 Question-Response			X								
1.6 Positive Echo			X								
1.7 Negated Antonym			X								
1.8 Recapitulation			X								
1.9 Paraphrase			X								
1.10 Generic-Specific				X							
1.11 Statement-Explanation	X										
Disjunction											
2.1 Alternative							X				
2.2 Alternative Consequent								X			
Cause-Effect											
3.1 Conditional/Temporal-Result 3.1a	A										
3.2 Warning			X								
3.3 Concession-Contraexpectation	X										
3.4 Contrafactual		X									
3.5 Proportion 1		X									
3.6 Proportion 2									X		
3.7 Reason-Result 3.7a, 3.7b		B			A						
3.8 Dependent Negative Conditional											X
Chronological											
4.1 Simultaneous 4.1a, 4.1b	A		B								
4.2 Sequence 4.2a, 4.2b	A		B								
3.1 Conditional/Temporal-Result 3.1b	B										

Figure 3. Grammatical Encodings of Sentence Types.

Considering the remaining columns one at a time:

Column 1. Conditional/Temporal-Result sentences (3.1a and 3.1b) are subtypes. The remaining sentences encoding in this column are in contrast because of contrastive filler classes of the margin tagmeme.

Column 2. The Contrafactual Sentence (3.4) has its own special aspect-tense predicate suffixes occurring in its base and so contrasts with Proportional Sentence 1 (3.5), which has no such restriction.

Column 3. For contrast among restatement sentences, see the introductory paragraphs to that section. It remains for us to contrast the remaining sentences encoding in this column with each other and with the restatement sentences.

a) Exhaustive Sentence 1.2. This sentence requires a neg/pos or pos/neg contrast between its two tagmemes, and does not require the interrogative mood in the second base. It therefore contrasts with all other types.

b) Warning Sentence 3.2. This sentence requires a negative imperative mood for the predicate of the base 1 tagmeme and therefore contrasts with all other sentences.

c) Simultaneous Sentence 4.1b. This sentence does not require restrictions on the pos/neg parameter, or on the mood. However, the tenses must be such that the events described occur simultaneously, and the first base obligatorily requires the imperfect morpheme -te in the predicate. It therefore contrasts with all other sentence types.

d) Sequence Sentence 4.2b. This sentence has the obligatory presence of a time word in one or the other of its tagmemes. It may have potential for linear expansion to additional bases, but examples are not available.

Column 4. The bases of the Generic-Specific Sentence (1.10) are not freely permutable in sentences containing three or more bases. The Generic proposition must occur initially or finally. In contrast, tagmemes are permutable in the Additive Sentence (1.3) unless secondary sequence relationships exist.

Column 5. The links of Antithetical Sentence A (1.1a) and Reason-Result Sentence A (3.7a) have different exponents, and so these sentences are in contrast.

Column 7. The links of the Conjoined Sentence (1.4) and the Alternative Sentence (2.1) have different exponent sets, and so these are in contrast.

Semantic Contrast. Figure 4 (see p. 138) shows the relationships that have been found among paired propositions in sentences in Kupia. The sentence types are shown under various semantic nodes, and their grammatical encoding into three divisions, coordinate, paratactic, and subordinate, is also shown. In examining the chart the following points are relevant about the binary divisions which are used throughout. The right hand node is always marked. The left hand node is either opposite to the right hand node—in which case it is labelled in parentheses—or not relevant to the right hand label, in which case it is unmarked.

The following parameters have been used in drawing the chart: chronological, cause-effect, conjunction, coordinate, restatement, disjunction, sequence, pos-neg, Neg, PP NN, Spk Exp, hypothetical, and Inter in Base 1. The first seven are defined in the body of the paper, we will now comment on the latter six.

Pos-Neg. This parameter requires a positive to negative semantic contrast between the bases of the sentence. Either positive or negative may occur in the first base. The negative proposition may be signalled by a negative morpheme or by a word having a negative connotation in relation to a corresponding constituent of the other proposition.

Neg. Sentence types under this node have a negative semantic feature. The feature differs with the sentence type: Warning has an obligatory negative imperative in the first base; Contrafactual is considered negative because the truth value of the event complex in the real world is the reverse of the truth value of the anticipated event complex; the margin of the Dependent Negative Conditional Sentence contains the negative exponent nenjile, 'if it is not so'; the bases of the Concession-Contraexpectation Sentence are in a positive-negative semantic contrast.

PP NN. The requirement here is that either both bases are positive or both are negative.

Spk Exp (speaker expectancy). This is a semantic requirement of the Positive Echo sentence. It anticipates the reply, 'Yes' from the addressee.

Hypothetical. The sentences included under this node are ones in which the outcome is unrealized and hence subject to verification.

Inter in Base 1. The first base of the sentence has an obligatory interrogative mood.

For sentences to be in contrast semantically, they must have at least one semantic difference. Any sentence type that occurs beneath a terminal node on the tree is in contrast with all types occurring under the other terminal points. Any sentences occurring beneath the same terminal point must be contrasted by semantic criteria beneath the threshold of the chart or joined as subtypes. Thus we join Antithetical subtypes A, B, and C; Reason-Result subtypes A and B; Simultaneous subtypes A and B; and Sequence subtypes A and B.

The remaining contrasts will not be given here. The semantic relationships among the propositions of each sentence type are given in the description of the individual sentences. They are all in contrast.

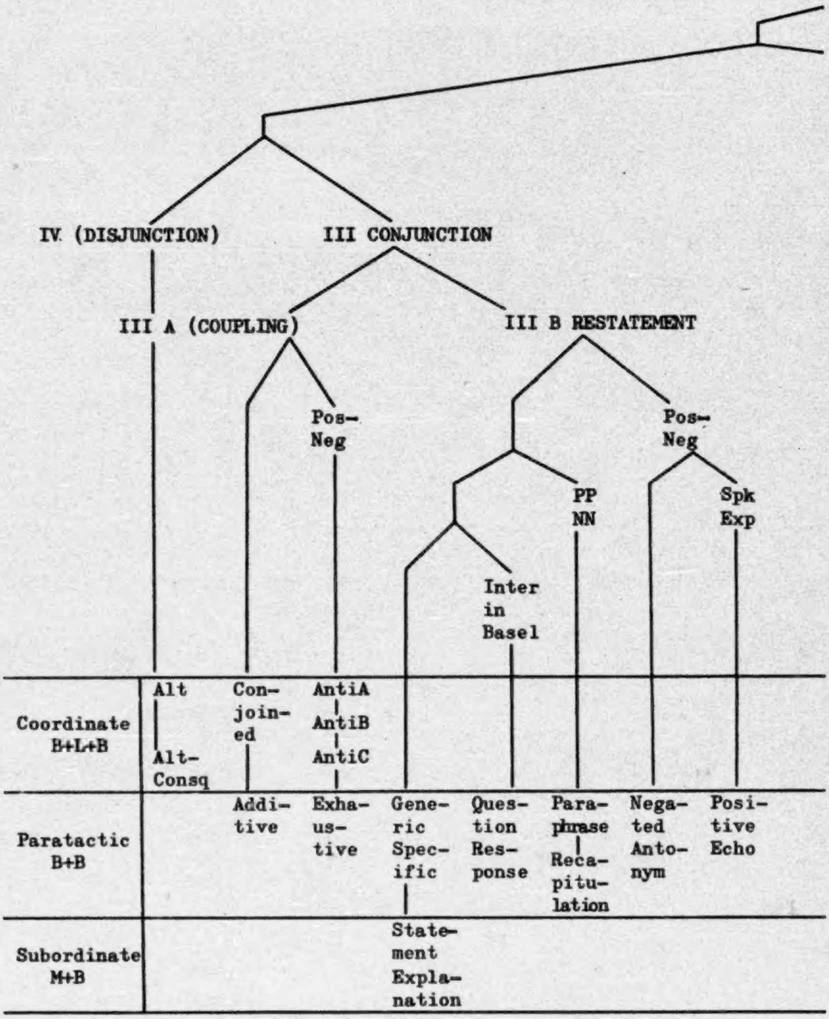
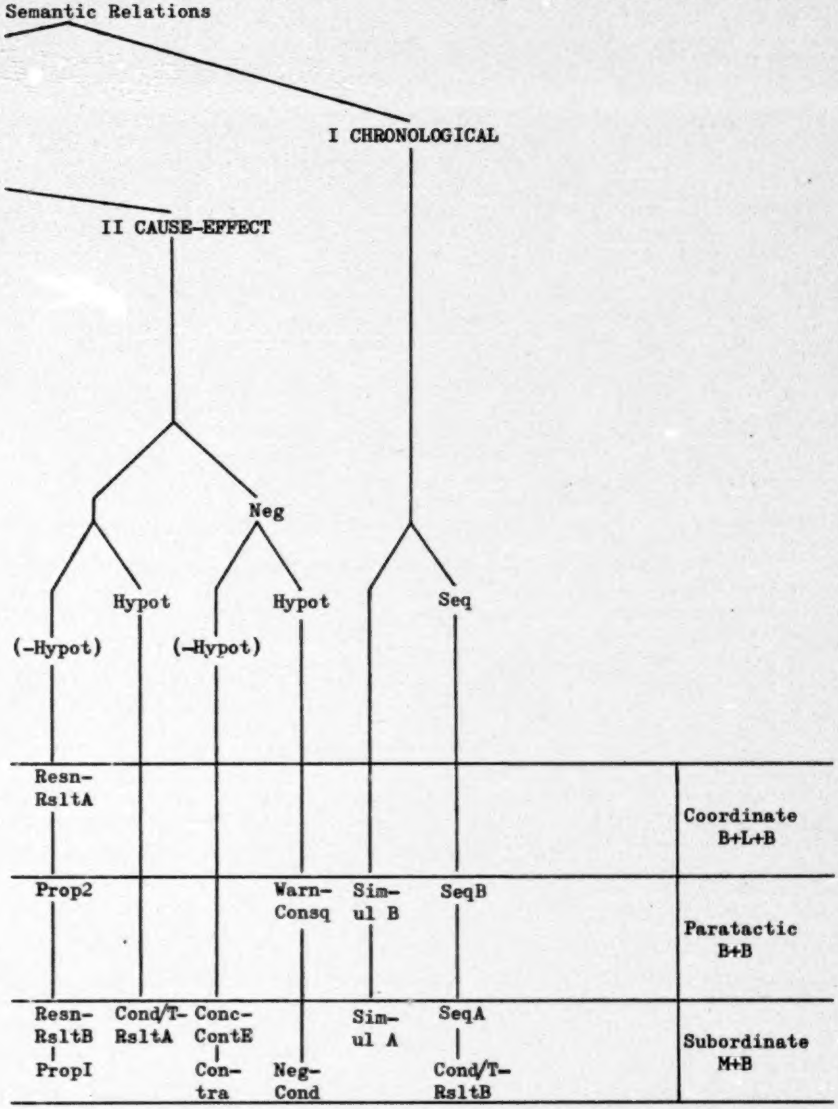


Figure 4. Semantic Relations between paired propositions in Kupia. (also showing Grammatical encodings of these sentences and their allos).


Semantic Relations
I CHRONOLOGICAL
II CAUSE-EFFECT
Neg
Hypot
Hypot
Seq
(-Hypot)
(-Hypot)
Resn-RsltA
Coordinate B+L+B
Prop2
Warn-Consq
Simul B
SeqB
Paratactic B+B
Resn-RsltB
PropI
Cond/T-RsltA
Conc-ContE
Contra
Neg-Cond
Simul A
SeqA
Cond/T-RsltB
Subordinate M+B

2.6 Secondary Relationships.

It is not infrequent to find sentences whose propositions can be considered to be in more than one relationship simultaneously. It is therefore necessary to recognize two classes of relationship—primary and secondary. Primary relationships are those which are in focus in a particular construction. Secondary relationships are those which incidentally encode along with the primary ones but are not in focus. In particular, coordinate sentences may have temporal or cause-effect secondary relationships between their propositions.

8) miiTing kera laTabte tilo ci jo seeDa kera mora gelo
meeting doing speaking he was and he falling doing dying went
'(A man) was talking at a meeting and he fell over and died.'
or
'It was during the conversation at a meeting that he fell over and died.'

Here we could say that the primary relationship between the propositions is coordinate as dictated by the grammatical form of the sentence. However, there is also a secondary temporal inclusive relationship in which one proposition is temporally included within the time span of the other.

In nominating a particular relationship to a number of propositions both grammatical and semantic considerations are evaluated. In the event of marginal cases grammatical considerations are given most weight, since we assume that the speaker will not choose a grammatical form to encode a secondary semantic relationship. Frequently the secondary relationship is indicative of the possibility of a transform of the sentence to a form where the secondary relationship becomes primary.

The whole concept of secondary relationships is worthy of further study, and it is anticipated that the study of higher levels in the hierarchy may be fruitful in this field of endeavour. Propositions in a given semantic relationship may have a number of different discourse conditioned grammatical encodings.

B. Sentence Periphery.

In this section we wish to present a brief description of the tagmemes in the Periphery slots. (Our term periphery would correspond to the term Outer Periphery used by Longacre, 1967). These tagmemes have a wide distribution among sentence types and, therefore, do not provide evidence for sentence contrast. When they occur with paired-propositional sentences they relate to the entire sentence and not merely to the one proposition. Their occurrence in no way alters the structure of the sentence nucleus.

Except in speech clauses, peripheral tagmemes do not normally occur in embedded constructions. It is intuitively felt that considerable co-occurrence and order restrictions are present among these tagmemes, but these have not been studied. The following is a formula for the sentence including peripheral tagmemes:

± Excl ± Voc ± Sen Intr + Sen Nucleus ± Performative

The sentence nucleus may be a Simple sentence, or any one of the sentence types described. It should be noted that the tagmemes under discussion occur as peripheral items to a sentence nucleus. We are not discussing sentence fragments or words or phrases which can themselves be an entire utterance.

Exclamation Tagmeme. This tagmeme consists of a class of exclamatory interjections each of which expresses the emotional attitude of the speaker. Expressions of surprise and agreement are common in our data.

9) ayiyo akkar naayi ge?
dear me want not emp Q
'Dear me, you don't want (all 10 of them) do you?'

10) abba teddi wellici!
oh boy that much big one
'Oh boy, it is as big as that!'

These two examples contain exclamation tagmemes having the speaker attitude of surprise, the following examples show a speaker attitude of agreement.

11) ooii cengngilci!
yes a good one
'Yes, a good one!'

12) aa:ha eepaTi karidulu kiisi tayede.
yes how much cost how much it will be
'Yes, (is that so?) how much does it cost? How much will it be?'

13) ng sangilan.
yes said he
'Yes, he said it.'

14) ng sare cucci isTum be.
yes O.K. your wish
'Yes, O,K., as you wish then.'

15) sare ja jowayinci eeku watawaraumunu baTTi jeewu keranula.
O.K. that their one way of life they do for themselves
'O.K., that is their way of life, they do it for themselves.'

Vocative Tagmeme. The vocative tagmeme has various exponents: (a) proper names, (b) kinship terms used in direct address, (c) classificatory terms such as 'child,' (d) terms of respect for an office maharaja 'king.' Examples with more than one vocative may well occur, but they have not been found.

16) kamiswarao, kaTmandu kiisi ase?
Kamiswarao Kathmandu how is
'Kamiswarao, how is Kathmandu?'

17) oo baTTo...
Oh brother-in-law...
'Oh brother-in-law...'

18) o puta cilluka deesu.
O my child parrot give
'Oh my child, give me the parrot!'

19) amma aa:wu konso nenji
lady I who it is not
'Lady, I am no one.'

Sentence Introductory Tagmeme. Introductory tagmemes locate the sentence in its logical, temporal or spatial relationship with respect to prior and following material. They also bind the sentence into the flow of discourse from which it comes; that is, they act as tagmemes of style, making the sentence acceptable and natural in its wider setting in discourse.

a) Conjunctive Introductory Tagmemes. The exponents of the link tagmemes of Antithetical, Conjoined, and Reason-Result A sentence types can also function as sentence Introducers. That is, they can occur within the nucleus, as links, or they can occur prenuclear, as sentence introducers.

Antithetical Conjunction.

20) gani calli taye nay anci ten.
but cold remain not me with
'But it is not cold at my native place.'

Conjoined conjunction, see also discussion describing the Conjoined Sentence.

21) taruwata dessu wenDluci Tii saamani...
in addition ten rupees tea goods
'On top of that, ten rupees worth of tea...'

22) anne raati payeDka soomari santayi baar jamunde.
again night fading monday market out become we will
'And next morning we will go out to the monday market.'

Reason-Result A conjunction.

23) jeeci risso caala baada ase wayya angka.
therefore much bad is life me to
'Therefore life is bad to me.'

24) ganuka tukka weyyi wenDlu.
therefore you to one thousand rupees
'Therefore a thousand rupees for you.'

b) Sequence Introductory Tagmemes. When they are conditioned by their situation in discourse, the margin tagmemes of the subordinate sentences under the chronological node can also act as sentence introducers. As such they are in double function. See the discussion, Sentence Margins at Discourse Level following the description of Sequence Sentence B.

c) Time, Location and other introducers. The following three examples exemplify these introducers.

25) teddoDi duuri geca iinjo waagu Takkuna ti:wo jaa gelo.
then distance going this tiger facing standing becoming went.
'Then, going some distance, the tiger stood up facing me.'

26) otta tinto buudar santa keeDa geli taruwata...
there from wednesday market finishing going time
'From there, Wednesday market having finished...'

27) tollito aDsi teelu imporTant mukkim.
firstly niger oil important tradition
Firstly, niger oil is an important tradition.'

Performative Tagmeme. Three performatives have been found in Kupia. They can occur sentence final or sentence medial, according to the item whose performance is being discussed. Performatives give speaker attitude about what is being told.

a) Possibility.

28) ...angka peTTa gelede kicco ge.
me to hitting finish will he maybe
'...maybe he will hit me.'

29) taruwata kicco ge paani aanede.
then maybe water bring he will
'Then maybe he will bring water.'

30) ...ayyasi kicco ge teddoDi nija ayili.
mother his maybe then sleeping came she
'...then maybe his mother slept.'

b) Disclaimer of responsibility.

31) neep-te bette baaga calli bette calli ge nay?
Nepal at they say very cold they say cold or not
'Nepal is very cold they say, is it cold or not?'

c) Factual.

32) himaalaya parwatumu jowayingka paasika tayede geda
Himalaya mountains them to near to remain it will indeed

jeeci risso calli tayede itali.
therefore cold remain it will here
'The Himalaya mountains are near to them, indeed, therefore it will remain cold here.'

C. Sentence Patterns.

1. Conjunction Relationship.

Any series of propositions which develop a single idea or category of thought are in a conjunctive relationship to each other. The propositions give different information on the same subject and have the same rank of importance. The relationship does not have chronological or logical time in focus, and is not disjunctive. The sentence types occurring under this semantic relationship node divide into those having a Coupling relationship and those having a Restatement relationship.

Coupling Relationship. This relationship is defined as the balance of those relationships which are defined as Conjunctive but not Restatement. It comprises sentences 1.1-4.

1.1 Antithetical Sentence.

1.1a-b Antithetical Sentences A and B.

	Sen				Sen
+ BASE 1	In Cl	± LINK	cj	+ BASE 2	In Cl
Thes Prop	pos/neg	Adver		Anti Prop	neg/pos

Grammatically, the Antithetical sentence is a coordinate construction consisting of only two independent bases which may be juxtaposed, or coupled together by a link tagmeme. Semantically it is a conjunctive relationship between two propositions which are logically opposed to each other. The first proposition presents a thesis against which the second proposition poses a counter statement. These two semantic functions—thesis and antithesis—are connected by a positive-negative/negative-positive semantic contrast.

In Kupia adversion always involves this potitive-negative semantic contrast. This contrast may be indicated by a negative particle in one base or by a pair of antonyms. Sometimes the contrast is between two seeming positives. In these cases, however, one proposition has a culturally determined negative value.

33) (B)inne kariidu (L)gani (B)caala andumayna wastuwulu asti.
here high cost but very nice goods are
'Goods are expensive here, but nice.'

Here 'expensive goods' are viewed negatively from a cultural standpoint, being beyond the means of the average Kupia speaker. To this is added the counter consideration in the antithesis that the goods are nevertheless 'nice.'

On thé basis of grammatical structure we have posited two subtypes of Antithetical sentence. The first—subtype A—is one in which the link is obligatory; the second—subtype B—is one in which the link is optional. Into this subdivision four contrastive semantic relationships encode in Kupia (Figure 5), paralleling the four-way division of English Antithetical sentences posited by Longacre (1971:797). These four semantic relationships are as follows:

Denied Expected Consequent. Here the contrast is formed by denying in the second proposition the expected outcome of the first.

34) (B)jowaka amci gerri jee mena sangilayi (L)gani (B)nesilo.
him to our house come saying said I but I'm not coming he said.
'I said to him, 'Come to our house,' but he said that he wouldn't.'

35) (B)etki kuuDanu ja seekumte cendupa jala maansulayi (L)gani
all together that caste mixing became people emp but
(B)pramaadumu kerti naayi.
bad luck do not
'People of all castes mix together, but they (Nepandlus) do not bring bad luck.'

Note: In the speaker's experience, Nepandlus typically do things bringing bad luck when they mix with others.

Denied Alternative. The distinguishing feature of this type of semantic relationship is that it is a transform of an underlying alternative sentence.

36) (B)jo ballum ase (B)Dongk nay.
he fat is tall not
'He is fat but not tall.'

Example 36, 'He is fat but not tall' has the underlying alternative sentence *jo ballum ge Dongk ge* 'He is fat or tall?' Note that the antithetical sentence denies one of these choices.

37) (B)inne sommul asti (B)gorrel nay.
here cattle are goats not
'There are cattle here, but not goats.'

Softening Counter Balance. Here the second proposition presents a consideration which offsets the negative connotations of the first. See examples 33 and 38.

38) (B)jo maansu gullo laTabe nay (L)gani (B)sangile suuntayi.
that man dumb speak not but speak if hear he
'That man is dumb, he cannot speak, but if someone speaks he can hear.'

Contrasting Situations. Here parallel situations are contrasted with each other, typically by opposing at least two tagmemes of one proposition with the corresponding tagmemes of the other proposition. In example 39 the subject and predicate are opposed.

39) (B)tuuwi inne taa (B)aa:wu gecinde.
you here remain I go will
'You remain here, I will go.'

40) (B)jo parikca cengngili dile sarda (B)sariga nendile
he examination good give happy satisfactory not give

caala kasTum.
much trouble
'If he does a good examination he will be happy, if he does not do satisfactorily, he will have trouble.'

In the Antithetical sentence deletion of shared items can occur in either base providing no loss of meaning results. Bases are permutable—restrictions on permutation have not been studied—the link remaining between them. It is anticipated that we will find that most sentence and clause types can fill either base. However, clauses in the interrogative mood have not been observed in the data thus far.

Grammatical / Semantic		Parataxis	Conjunction
Subtype A	Denied expected consequent		X
Subtype B	Denied alternative	X	X
	Softening counter Balance	X	X
	Contrasting situations	X	X

Figure 5. Encoding of Antithetical Sentences, A and B.

1.1c Antithetical Sentence C.

In this subtype the relationship between the propositions is the same as subtypes A and B. However, either or both bases may have dependent exponents. A common recurring pattern is for a Dependent Negative Conditional sentence to be the exponent of base 2.

41) (B)angka saantaanumu jeyede (L)gani (B)nenjile gina
me to heir come will but otherwise particular

jeye naayi.
come not
'I will get an heir, but otherwise I will not.'

42) (B)appe bleeDlu ayilici risso bleeDlu tenu boodaka (L)gani
now razor blades came because blades with child to but

(B)nenjile agge pimpDalu tila amka eejensite.
otherwise before sharp metal pieces were our hill area in
'Now that razor blades have come we (shave) the child's (hair) with blades, but otherwise, before, we had sharp metal pieces in our hill area.'

43) (B)aa:wu gele kayi (L)gani (B)nenjile naayi.
I go if but otherwise not
'I may go, but otherwise I won't.'

1.2 Exhaustive Sentence.

+ BASE 1	In Cl	+ BASE 2	In Cl
Prop 1, Partial semantic field	pos/neg	Prop 2, Remainder of semantic field	neg/pos

Grammatically the Exhaustive sentence is a paratactic construction consisting of only two independent juxtaposed bases. Semantically the propositions of the Exhaustive sentence divide a semantic field, that is, the addition of the two propositions exhausts a semantic field of meaning. The propositions have a positive-negative/negative-positive contrast.

In example 44, the semantic field is all the people in the village, while in example 45 it is all the things to be known about the life of the speaker's father. Base 2 of the Exhaustive sentence frequently undergoes deletion of some of the dramatis personae occurring overtly in base 1.

44) (B)ja gaa:wi sagumu jiini telugu jaanti (B)sagumu jiini
that village in some people Telugu know some people

neenti.
con't know
'In that village some people know Telugu and some people don't.'

45) (B)jaanlisi sangilayi (B)sagum aa:wu neeni.
knowing things I have said some I don't know
'I have said what I know, some things I don't know.'

46) (B)jowaka weera rangguca sokkalu nay (B)cokkilaca asti.
him to different coloured shirts not white ones are
'He has no coloured shirts, he has only white ones.'

A variation of the Exhaustive sentence occurs when we have an Inclusive/Exclusive relationship between the propositions. That is a semantic field or thing is stated to occur under certain circumstances in one proposition and is stated not to occur under those circumstances in the other proposition.

47) (B)jaanle cucci (B)neenle anci
understand if yours not understand if mine
'If you understand (the story), you can have it, if not it is mine.'

48) (B)anci awwo keene ase ge (B)keene nay ge (gani tuuwi angka
my father where is ever where not ever but you me to

awwo jaladi.)
father became
'Wherever my father is, wherever he isn't (doesn't matter for you have become my father).'

1.3 Additive Sentence.

+	BASE 1	In Cl	+	BASE 2	In Cl	±	(BASE	In Cl)^n
	Prop 1			Add Prop			Add Prop.	

Grammatically the Additive sentence is a coordinate construction consisting of a minimum of two independent juxtaposed bases. Semantically the Additive sentence consists of propositions whose concepts are conjoinable—the sentence being used when the speaker wishes to list information or make a number of statements about some particular item or idea. The propositions must be culturally of the same semantic field.

The relationship is sometimes weak. The justification for saying that any two tagmemes comprise a multi-propositional sentence and not two or more Simple sentences, may not always be apparent. Points to consider in each case are: a) the presence of shared tagmemes; b) the presence of tagmemes in propositions 2, 3, and n having antecedents in proposition 1; and c) tendency toward parallelism in structure.

49) (B)kaantama gerri nay (B)gaDDe geca ase.
Kantama house in not river at going is
'Kantama is not in the house, she has gone to the river.'

50) (B)inne oggar cengngila reeDivolu asti (B)inne calli kuDa oggar.
here many good radios are here cold also much
'There are many radios here, it is cold here also.'

In example 50, the speaker is describing the city of Kathmandu. The number of good radios and the coldness of the climate are two main points which have left an impression on his mind. They are, then, of the same semantic field. This point is also apparent by the use of kuDa 'also' in proposition 2. These two propositions were the entire utterance in response to a question also indicating that the two form a single sentence.

51) (B)inne etki jiini cengngili asti (B)tuumu kuDa amci ritti
here all people good are you also us like

cengngili tangka mena aa:wu deemuDuka jokartasi.
good remain saying I god to pray
'All the people are well here; I pray that you also may remain well like we are.'

The second proposition in example 51 not only has the word kuDa 'also' which ties the two together, but also contains the words, amci ritti 'like us' which has as its antecedent in the first proposition the words inne etki jiini 'all the people here.'

1.4 Conjoined Sentence.

+	BASE 1	In Cl	+	LINK	cj	ci anne taruwata	+	BASE 2	In Cl
	Prop 1			Conn		and		Add Prop	

± (	LINK	cj	ci anne taruwata	+	BASE	In Cl	$)^n$
	Conn		and		Add Prop		

Grammatically the Conjoined sentence is a coordinate construction consisting of a number of independent bases which are coupled together by link tagmemes. Semantically the propositions are in a conjunctive relationship, being bound together by connectors. The propositions must be of the same semantic field. That is, they must, in the view of the speaker, be semantically joinable.

The conjoined relationship, then, is loose and is used when the speaker wishes to give more information to the hearer or reader. Probably because of the semantic neutrality of this relationship, secondary relationships are frequently present, notably coextension, inclusion, sequence, reason-result and grounds-result.

In Kupia there are three exponents of the link tagmeme: taruwata 'and,' anne 'and/again,' and ci 'and.' Of these, ci is the most commonly occurring exponent of the link tagmeme and is not used above sentence level. taruwata, a Telugu loan, and anne may also function as sentence introducers and as sequence markers in paragraph construction.

52) (B)jeewu laTabti baasa eeku weera hindi tenu nay (L)taruwata
they speaking language one different Hindi with not and

(B)telugu tenu bede nay (L)taruwata oriya tenu bede
Telugu with understand not and Oriya with understand

nay...
not
'The language they speak is not a little different from Hindi and speaking Telugu does not help understand, and speaking Oriya does not help understand...'

53) (B)jà naaDi aDugu galli (L)ci (B)jo naaDu baa:wusi pungilo.
that girl steps put and that boy flute blew
'That girl danced and that boy played the flute.'

54) (B)gaa:vica maansulu DanDal tenu weDale ayila (L)ci (B)nakko
villages people sticks with field in came and jackal

uTTa nigilo
moving ran he
'The villagers came to the field with sticks and the jackal ran away.'

55) (B)dekuma (L)ci (B)dera gecuma.
let us see and carrying let us go
'Let's see and carrying (it) go.'

56) (B)eekuloka manda rakuka tedrayilo (L)anne
one person to sheep and goats to herd sent he and

(B)angka baaga widya etki sangilo.
me to much knowledge all said he
'He sent only him to herd sheep and he told me all the knowledge completely.

Restatement Relationship. This relationship is also termed Equivalence. The propositions of Restatement sentences are in a logical conjunctive relationship to each other. The second proposition restates, enlarges upon or explains the first or a constituent of the first. That is, the propositions are semantically linked together because essentially the same information is given in each proposition.

For Kupia we posit seven sentence types having various degrees of refinement within this relationship. Numbers 1.5-10 have a coordinate surface structure encoding, and number 1.11 has a subordinate surface structure encoding.

Using the parameters: a) coordinate/subordinate; b) obligatory interrogative mood/optional interrogative mood; c) positive and negative contrasts; d) same subject and predicate/optionally same subject and predicate; we justify surface structure contrasts among these sentences. See Figure 6. Note that only one grammatical difference is required to contrast a type (linked of course with a semantic difference as well).

Const. Type	Oblig inte-mood		Pos / neg		Dramatis Personae	Sentence Type
	Base 1	Base 2	Base 1	Base 2		
Coor	X					Ques-Resp.
		X	pos	neg	Same S.P.	Positive Echo
			pos	neg		Negated Antonym
			pos neg or	pos neg	Same S.P.	Recapitulation
			pos neg or	pos neg		Paraphrase
						Generic-Specific
Subord						Statement -Explanat.

Figure 6. Grammatical Contrast among Restatement Sentences.

1.5 Question-Response Sentence.

+	BASE 1	Sen In Cl	+	BASE 2	In Cl
	Ques Prop	inter mood		Resp Prop	decl mood

Grammatically the Question-Response Sentence is two juxtaposed tagmemes; an independent base in the interrogative mood and an independent base in the declarative mood. Semantically the Question-Response sentence consists of two propositions which are in a restatement relationship, the second proposition supplying the answer to the question of the first. The propositions are spoken by one person, one after the other.

Ordinarily one does not think of question-response as being in a restatement relationship. This is a specialized use of it, however, in which the speaker says the same thing twice—once in the form of a question to arouse interest, then in the form of a statement to supply the needed information. The question-response device is used frequently in storytelling in Kupia, conveying information and at the same time highlighting it. The interrogative mood may be signaled by a question word, by the interrogative marker *ge*, or by intonation.

57) (B)kicco toonTa (B)jo anTu maamiDi toonTa.
what mango that antu mamidi mango
'What mango (am I speaking about)? the antu mamidi mango.'

58) (erike jale) (B)tukka kicco kaam kertayi ge
(knowledge become if) you to what work I would have done Q

(B)dekitadi.
you would have seen
'(If I had known), what would I have done to you, you would have seen.'

Here the Question-Response sentence is embedded in the base tagmeme of a Contrafactual sentence. Hence the predicates of both bases have the contrafactual aspect-tense form, having the common conditional margin erike jale 'knowledge become if.'

59) (B)konso (B)iisweruDu.
who Iswerudu
'Who? Iswerudu.'

This example was found paragraph final. It highlights the information that the person who had been discussed was the god Iswerudu.

1.6 Positive Echo Sentence.

+ BASE 1	Sen In Cl	+ BASE 2	In Cl
Iden Prop	pos decl mood	Echo Prop to require answer 'Yes'	inter mood

Grammatically the Positive Echo Sentence consists of only two juxtaposed independent bases. The first occurs in the positive declarative and the second in the interrogative mood. The second proposition is minimal, usually consisting of a negative word or phrase. Semantically the two propositions of the Positive Echo sentence are in a restatement relationship in which the second proposition rephrases the first in the form of a question, but with the added component of speaker expectancy. In this case the echo question requires the answer 'Yes' from the addressee.

Because the second base is an elliptical repetition of the first, with the added component of speaker expectancy, we prefer to consider the construction a paired-propositional sentence, and not a Simple sentence with a tag question filling a peripheral performative slot.

60) (B)tumte neepal sTamplu oggar asti (B)nay sir?
your (house) at Nepal stamps many are not sir
'You have many Nepalese stamps, haven't you, sir?'

61) (B)neepal mena kera sangile otta nepanlu bette tawula
Nepal saying doing speaking if there Nepandlu they say remain

(B)nijumuwi ge?
they truely Q
'Talking about Nepal, Nepandlu people stay there, they say, don't they?'

We are unsure of the exact meaning of nijumuwi. It may be that one of its components is a negative one and that it means 'without a doubt.' If so this sentence type would require a negative marker in base 2, as it does in English.

1.7 Negated Antonym Sentence.

+ BASE 1	In Cl	+ BASE 2	In Cl
Iden Prop	pos	Neg Ant Prop	neg

Grammatically the Negated Antonym Sentence consists of only two juxtaposed independent bases, the second being in the negative aspect. Semantically the propositions of the Negated Antonym Sentence are in a restatement relationship in which the second proposition restates the first by negating an antonym of one of the constituents of the first proposition.

62) (B)jo maansu guDDi (B)deke nay.
that man blind man see not
'That man is blind, he cannot see.'

63) (B)boodalka anci paasi tedrawa (B)jowayingka aDDu kera nay.
children to me of near send imp them to block doing not
'Send the children to me, don't stop them.'

64) (B)tuuwi inne go (B)tuuwi iinja gaa:wi taa nay.
you here go you this village in remain not
'You go (from here), don't remain in this village.'

65) (B)ja noppi appe waraka ase (B)tawuki jeye nay.
that pain now up to is small becoming not
'The pain is still there, it has not become smaller.'

1.8 Recapitulation Sentence.

+ BASE 1	Sen In Cl	+ BASE 2	In Cl
Iden Prop	same S/P	Restat Prop	same S/P

Grammatically the Recapitulation Sentence consists of two juxtaposed independent bases. Semantically the propositions are in a restatement relationship in which one proposition repeats at least the subject and predicate of the other and enlarges upon it.

The sentence is typically used to describe some special purpose, or to emphasize an unusual behavior pattern or dramatic action.

66) (B)aa:wu kaTmandu gelayi (B)aa:wu gaa:wu dekuka gelayi.
I Kathmandu went I town to see went
'I went to Kathmandu, I went to see the town.'

67) (tuuwi keddoDi dekile kuDa) (B)bulite tatasi (B)tuuwi keddi
you how much see if even you go about you how much

bultasi.
go about
'(However much (I) see you,) you are going about, you go about so much.'

68) (B)tuuwi kiccoka ayiladi (B)tuuwi kicco ceeta ayiladi.
you what for came you what for came
'Why did you come, for what reason did you come?'

We also include within this sentence type identical repetition of a sentence. Repetition is used for emphasis.

69) (B)muurtumu dekumde (B)muurtumu dekumde.
horoscope see we will horoscope see we will
'We will look at the horoscope, we will look at the horoscope.'

70) (taruwata awwo ammoka erike neente) (B)kondaru
(then mother father to knowledge not knowing) conspiracy

yaatra mena dera gecula (B)paDuwani dera
elopement saying bearing go they will elopement bearing

gecula.
go they will
'(Then without their mother and father knowing) they will go off together in conspiracy, planning a love marriage; they will go off and elope.'

1.9 Paraphrase Sentence.

+ BASE 1	Sen In Cl	+ BASE 2	Sen In Cl
Iden Prop	pos/neg	Para Prop	pos/neg

Grammatically the Paraphrase sentence is a coordinate construction of two juxtaposed independent bases. Semantically the Paraphrase Sentence propositions are in a restatement relationship in which the second proposition repeats the idea of the first by using a synonym of one of the constituents of the first. The propositions have essentially the same semantic content.

As box 5 of the formula shows, the relationship is positive-positive or negative-negative, in contrast to the positive-negative or negative-positive form required by the Negated Antonym Sentence.

71) (B)caala kasTumu kicco ge nay (B)goppa alara jatasi naayi.
much trouble what Q not much trouble become am I not emp
'Maybe much trouble (will come), won't it: much trouble I will have, won't I.'

1.10 Generic-Specific Sentence.

+ BASE 1	In Cl	+ BASE 2	Sen In Cl	± (BASE	In Cl)^n
Iden Prop	gear	Spec Prop	spec	Spec Prop	spec

Grammatically the Generic-Specific Sentence consists of juxtaposed independent bases. When only two bases occur permutation is permissible. Semantically the propositions of the Generic-Specific sentence are in a restatement relationship in which one proposition enlarges on another by stating one or more specifics of the generic concept of the other. The relation includes whole and parts, summary and specific actions, and class and class members.

In Kupia, this relationship frequently occurs among terms. It also occurs in constructions which we are considering paragraphs.

72) (B1)aa:wu poostasi (B2)tukka baTTa dengka (B3)katti kawini
I care you to cloth buy inf edible food

dengka.
give inf
'I care for you, I give you cloth and food.'

73) (B1)jo cengngilo maansu (B2)jo daya tiloso (B3)nampa maansu
he good man he kind person honest man

(B4)anne deemuDu cuppiri batti tilo maansu.
and god upon devotion was man
'He is a good man, he is kind, honest, and godly.'

74) (B2)angka siitu galluka ge eDidi caDDuka ge (B1)iisa kammo etki
me to seat do inf Q tumeric look inf Q such works all

tuumu keruka ase.
you do inf is
'You must make a seat for me, or look for tumeric for me, all such types of work you must do for me.'

In this example the generic proposition occurs following the specific proposition, the latter proposition encoding as an embedded Alternative sentence. See also example 3 in the introduction.

1.11 Statement-Explanation Sentence.

+ MAR	AR Cl 1.4	+ BASE	Sen/Dis In Cl
Iden Prop		Explan Prop	

Grammatically the Statement-Explanation Sentence is a subordinate construction, consisting of a margin tagmeme—subordinated by a relator—and an independent base tagmeme. Semantically the propositions of this sentence are in a restatement relationship in which the second proposition identifies, explains, or summarizes a constituent of the first proposition.

Identification.

75) (M)iinja eeku welli santa melle (B)rajewooda santayi.
that one big market speak when huge market
'When we speak of the big market we mean the huge market.'

76) (M)caala kammo melle (B)pratti deemuDuka kukkuDo detosoka
many works speak when each god to chicken giving man to

kukkuDo dengka
chicken give inf
'By many things we mean, we must give a chicken to the person who offers a chicken to each god.'

77) (M)wiwaadanalu melle (B)kicco?
wedding gifts speak when what
'When we speak of wedding gifts, what do we mean?'

Explanation. When an explanation of the statement occurs, the base may be a complete discourse. In fact the Statement-Explanation relationship is, in Kupia, frequently the means of introducing a story—the statement being the title of the story.

78) (M)amci eejansite penDli melle (B)...
our hill area in marriage speak when story
'When we speak of marriage in our hill area,...'

Summary. The Statement-Explanation Sentence also occurs paragraph and discourse final. In these cases the proposition of the margin tagmeme names the subject of the paragraph and the proposition of the base tagmeme is a summarizing comment.

79) (M)amci eejansi penDli melle (B)iisici.
our hill area marriage speak when this way
'Speaking of marriage in our hill area, it is this way.'

80) (M)penDli mena sangile (B)iinja widdumu ganu jarugu
marriage saying speak when this custom according becoming

jayede
become it will
'Speaking of marriage, it is according to this custom.'

2. Disjunction Relationship.

This relationship is also known as the Alternative relationship. In the main, disjunction in Kupia is exclusive disjunction; that is, either proposition may be chosen but not both. However, example 87 seems to be one of inclusive disjunction; that is, either or both propositions may be chosen. For Kupia we posit Alternative Sentence and Alternative-Consequent Sentence.

2.1 Alternative Sentence.

+ BASE 1	In Cl	+ LINK	cj	ge	+ BASE 2	In Cl
Alt Prop 1		Pivot		or	Alt Prop 2	

+ LINK	cj	ge ± (	BASE	In Cl	+ LINK	cj	ge $)^n$
Pivot		or	Alt Prop		Pivot		or

Grammatically the Alternative sentence consists of a number of independent bases each followed by a link tagmeme. (If only two bases occur the final link is optional.) Semantically the Alternative sentence is a logical disjunctive relationship between propositions which are related by alternative functions or pivots and are offered as logical choices to each other.

Alternation between propositions is possible in three ways in Kupia:

Participants or dramatis personae. These can alternate with the same predicate.

81) (nay melle) (B)iinja danumu kaawale (L)ge (B)iinja eenugu
(not say if) this present want or this elephant

kaawale (L)ge (B)iinja radal kaawale (L)ge?
want or this vehicle want or
'(If you refuse), do you want this present, or do you want this elephant, or do you want this vehicle?'

82) (B)cenngil ase (L)ge (B)gaar ase (L)ge(-ci kaDa dessu.)
good is or bad is or(one's take give imp)
'Whether they are good one's or bad one's, (take them).'

Predicates. These can be alternated using a positive-negative contrast. In such cases only two bases can occur, and complete ellipsis of the second base is permitted in sentences in the interrogative mood. The interrogative mood may be signaled by intonation. However, frequently we interpret the final ge of sentences alternating in this way as an interrogative marker.

83) (B)anci kooDu sangilad (L)ge (B)naayi baabu?
my word said you or not sir
'Did you say what I said or not, sir?'

84) (tuuwi sangile) (B)anne aa:wu anne aa:wu aani nay (L)ge
(you speak if) again I again I bring not or

(B)aaninde.
bring I will
'If you speak again, I will not bring it again, or I will bring it.'

85) (B)metti uddesumu jo gallede (L)ge (B)nay (L)ge?
saying intention he do will or not or
'Will he do what he said or not?'

Antonyms. The alternation can be between antonyms across the bases.

86) (B)kooTlu wellelaca (L)ge (B)eduDlasa?
shops big ones or small ones
'Are the shops big ones or small ones?'

Occasionally the link ge can be glossed 'and' as well as 'or,' and in some cases 'and' appears to be more natural. When this is the case the propositions are no longer alternatives where only one may be true, but a list of choices where all may be chosen. That is, if the meaning is clearly 'and,' the propositions are no longer in an exclusive disjunctive relationship, but in an inclusive disjunctive relationship.

87)

(B)angka	siiti	galluka	(L)ge	(B)eDidi	caDDuka	(L)ge
me to	ritual	must do	or/and	tumeric	touch must	or/and

(iisa	kɛmmo	etki	tuumu	keruka	ase).
(like these	works	all	you	must do	is)

'You must do the rituals for me, or/and you must touch tumeric for me; (all these types of things you must do for me).'

2.2 Alternative-Consequent Sentence.

+ BASE 1	Sen In Cl	± LINK	cj	ge	+ D BASE	Sen*
Alt Prop 1	unrealized action	Pivot		or	Neg of Alt Prop 1 and Consq of Neg Choice Prop	

*Dependent Negative Conditional Sentence.

Grammatically the Alternative-Consequent Sentence is a coordinate construction consisting of only two bases coupled together by an optional link tagmeme. The second base is grammatically dependent because it is expounded by the Dependent Negative Conditional Sentence (see C.3.8). This is the only sentence type which requires an embedded sentence in one of its bases. The Dependent Negative-Conditional sentence is dependent because of the obligatory presence of the margin nenjile 'if it is not,' which requires an antecedent.

Semantically the Alternative-Consequent sentence offers a choice between alternatives—proposition 1 and its negative. The second base proposition not only indicates that the negative choice exists, but goes on to mention the consequences of that negative choice. The optional link tagmeme carries less weight than the corresponding link tagmeme of the Alternative sentence, since nenjile 'otherwise' of base 2 also shows that a choice exists. Alternation is positive-negative by virtue of the meaning of nenjile.

88)

(B)jo	maansu	ja	kaam	appe	kerede	(L)ge	(B)nenjile	sanjeka
that	man	that	work	now	do will	or	otherwise	evening

kerede.
in do will

'That man will do the work now or otherwise he will do it in the evening.'

89)

(B)aa:wu	sangile	karekTu	sanginde	(B)nenjile	aa:sa	gelula.	
I	speak if	correct	say will	otherwise	laugh will	they	

'If I speak I will say it correctly, otherwise they will laugh.'

90) (B)eeku maargumu dekawuma (B)nenjile gina iinjeewu
one route show let us otherwise particular these

kuTumbalu kiisi jewula.
families how come will
'Let us show them the route, otherwise, how will these families come.'

91) (B)dassacaka tii:wile jeyinsupa jawula
such things to stand up to cure manner become they

(B)nenjile nay.
otherwise not
'If they stand up to such things they will recover from them, otherwise they won't.'

3. Cause-Effect Relationship.

The cause-effect relationship among propositions is somewhat more complex than the conjunctive, disjunctive, or chronological time relationships.

The cause-effect relationship has logical time in focus—the effect proposition logically following the cause proposition. Secondarily, a chronological-sequence relationship exists, since the effect always chronologically follows the cause. When the proposition of each base is a continuing action, the relationship may not at first appear to be sequential as much as simultaneous, as in the following example.

92) (M)angka tuuwi keddoDi dekite tile kuDa (B)goola
me to you how much seeing if ever argumentative speech

kerte tatasi.
doing you keep
'However much you keep seeing me, you keep arguing.'

In this example, however, it is assumed that the person has to see the other person before he can start arguing. That is, the sentence is speaking about a number of occasions, each of which has propositions in a logical and chronological-sequential order. These, spoken of as an on-going relationship between two actions, give the impression of simultaneity.

Relationship		Contrasts	
Cause	Effect	Cause	Effect
Cond/Temp	Result	Stated as suppositional	Stated as definite
Warning	Consequent	Stated as a command	Stated as probable outcome
Concession	Contra-expectation	Stated as the cause of an expected result	Stated as unexpected result
(Contrafactual) Condition	Outcome	Stated as unfulfilled condition	Stated as unfulfilled outcome
(Proportional) Identity	Correlative	Stated as identity item	Stated as correlative item
Reason	Result	Stated as grounds of following result	Stated as definite
(Dep Neg Cond) Condition	Consequent	Stated as a Neg Condition	Stated as definite

Figure 7. Semantic Contrasts Among Cause-Effect Sentences.

3.1 Conditional/Temporal-Result Sentences.

Introduction. Consider the sentences spoken by speakers A and B.

A. When I become a millionaire, I'll buy a Rolls.
B. You mean, if you become a millionaire.

We see both the semantic closeness and the contrast of the relators 'if' and 'when'. However two morphemes in Kupia, le and le gina, have both 'if' and 'when' as their possible meaning. Yet 'if' is used to show propositions in a cause-effect relationship and 'when' is used to show propositions in a chronological relationship. For Kupia therefore we posit two subtypes based on whether we gloss the relator 'if' (subtype A), or 'when' (subtype B).

In many examples of subtype A, it is also possible to gloss the relator 'when'. The following points are made about the choice of glosses.

1) Relator gloss is 'if':
    a) On many occasions when a negative morpheme occurs in the protasis.
    b) When time words or phrases in either or both propositions require 'if' (see examples 93 and 98).
2) Relator gloss is 'when':
    a) When the base proposition is in the past tense.
    b) When fulfillment of the base proposition is considered inevitable.
    c) When the margin is filling a sentence introductory slot; that is, when the margin is discourse conditioned.
    d) When required by lexical considerations.

3.1a Conditional/Temporal-Result Sentence A.

+ MAR	AR Cl 1.2 AR Cl 1.1	+ BASE	Sen In Cl
Cond Prop		Rslt Prop	hypothetical action

Grammatically this Conditional/Temporal-Result Sentence is a subordinate construction consisting of a margin and an independent base. The margin is dependent because of the obligatory presence of one of a number of conditional relators. Semantically the propositions of this sentence are in a cause-effect relationship. The protasis states a condition and the apodosis an eventuality based on that condition. The protasis is semantically dependent because the meaning of the relator signals that a result proposition is to follow. The term hypothetical in box 5 of the base requires that the verb be negative, potential aspect, future tense, or some other unrealized action.

The verb of the margin tagmeme is without tense and is not inflected for number or person. It can take the imperfect aspect morpheme -te. Negation can be applied to either or both bases. Example 93 shows the causative morpheme -ay in the verbs of both margin and base tagmemes. The verb of the base tagmeme must be negative, potential, or some other unrealized aspect.

93) (M)jo maansu appe ja kaam kerayile (B)sanjeka kerayi nay.
that man now that work work-k-if evening do-k-if not
'If that man is made to do the work now, he will not be made to do it in the evening.'

Here the words appe 'now' and sanjeka 'evening to' require the gloss 'if' for the relator.

94) (M)tuuwi anci baaki nendile (B)riporTu kerinde.
you my wages not give if report do I will
'If you don't give me my wages, I'll make a report.'

In this example the Conditional/Temporal-Result sentence is also a warning-consequent relationship.

The relator may also be -le gina, 'if particular.' The function of gina is to make the condition more specific, focussing on an item in the protasis, usually the subject.

95) (M)tuuwi tile   gina   (B)aa:wu tayinde.
     you   remain if particular   I   remain will
     'If you remain, I will stay.'

In example 95 there is something special about tuuwi, 'you.' This information would normally be conveyed by intonation in English.

As shown in the formula, the margin can also encode as AR Cl 1.2. That is, the relator may be -le kayi, 'if' or in some cases 'if then.' In all the examples to hand, this relator most naturally takes the gloss 'if.' So far we have no examples where the meaning of this relator is 'when.'

96) (M)tuuwi neayile kayi (B)tukka deke nay.
     you   not come if   you to see not
     'If you don't come, he will not see you.'

97) (M)donni wanTalu kele kayi (B)aa:wu oppinde
     two   shares do if then   I   will be satisfied

     (nelle   oppi   nay.)
     (not come if satisfied not)
     'If you do two shares, I'll be satisfied. (If two shares don't come I won't be satisfied.)'

98) (M)ja   kaam kerle kayi (B)tukka aaji kuular deyinde
     that work do if then   you to today cereal give I will

     (nenjile   deyi nay.)
     (otherwise give not)
     'If you do that work, I will give you cereal today.
     (Otherwise I will not).

3.1b Conditional/Temporal-Result Sentence B.

+ MAR	AR Cl 1.1	+ BASE	Sen In Cl
Prior Prop		Final Prop	

Grammatically the Conditional/Temporal-Result Sentence B is a subordinate construction consisting of a margin and an independent base. The margin is dependent because of the obligatory presence of one of a number of relators. Semantically the propositions of this sentence are in a temporal relationship in which the propositions follow each other in time. The margin proposition is semantically dependent because the relator signals that a final proposition is to follow.

The verb of the margin tagmeme is without tense and does not signal number or person. It can take the imperfect morpheme -te. Negation can be applied to either or both bases.

Examples with base proposition in past tense.

99) (M)ja   gorre mora ggele   (B)ja   gaa:wica kicco kerla?
that goat dying finish when   that villagers what did they
'When the goat died, what did the villagers do?'

100) (M)cengngil kera gele   (B)jeewu cengngil jala.
well   doing finish when   they well   became
'When they had done it well, they became well.'

Examples where the fulfillment of the protasis is considered inevitable.

101) (M)ayyadi   bette   tukka sangile   (B)jeweka biyaDtasi.
mother your they say you to speak when   her to fear-k you
'When your mother tells you, you frighten her, they say.'

102) (M)termi aanle   (B)tukka panika
wife bring when   you to joining of possessions

jeyede
become it will
'When I bring a wife to you, you will join your and her possessions.

In the culture of Kupia speakers, there are a number of acceptable methods of becoming married. The most frequent is for the fathers of the man and woman to choose a spouse and arrange the wedding.

103) (M)aneku   werseku donni wersu gele   (B)terni aaninde.
another year   two   years finish when   wife bring I will
'When another year or two have passed I'll bring a wife.'

104) (M)aa:wu Demsa kelle   gina   (B)aa:sa   deyula.
I   dimsa play when particular   laughing give they will.
'When I (particularly) dance the dimsa dance, they will laugh.'

105) (M)tuuwi Demsa kelte tile gina (B)aa:sti nay.
you dimsa dance continue to when particular laugh not
'When you (in particular) continue to dance the dimsa they will not laugh.'

In examples 105 and 106, the verbs of the margin tagmeme contain the imperfect aspect morpheme -te, and have a secondary simultaneous relatioship.

106) (M)ja naaDi aDugu galte tile (B)iinjo naaDu
that girl steps put continues to when this boy

baa:wusi pungitayi.
flute blows
'While this girl keeps on dancing, this boy plays the flute.'

In the following examples the relator may be glossed either 'when' or 'if.'

107) (M)tuuwi ayile (B)tukka dekede.
you come when/if you to see he will
'When/if you come, he will see you.'

108) (M)jo ja kaam sariga kerle (B)dessu wenDlu deyinde.
he that work properly do when/if ten rupees give I will
'When/if he does that work properly, I will give him ten rupees.'

This sentence subtype frequently occurs in certain types of discourse where the margin tagmeme is in double function. As such the margin functions: a) as a temporal linking device within the paragraph, summing up a previous action; and b) as the prior proposition of a temporal-result sentence. When functioning as such the relator -le must always be translated 'when.'

109) (...eeku yanabay ge tomboy patralu peTite nilay.) (M)peTite
(one eighty or ninety stones hitting took I hitting

nile (B)...
take when
'(...I threw eighty or ninety stones). When I had thrown (them)...'

3.2 Warning-Consequent Sentence.

+ BASE 1	In Cl	+ BASE 2	Sen In Cl
Warn Prop	imper mood	Consq Prop	hypothetical action

Grammatically Warning-Consequent Sentence consists of an independent base in the imperative mood and an independent base in some unrealized aspect. Semantically the sentence is two propositions in conditional cause-effect relationship in which one proposition is in the form of a command and the other a statement of the consequences if the command proposition is not fulfilled.

The verb of base 2 must be negative, imperative, potential, or some other unrealized aspect. The propositions have a common dramatis persona, namely the actor of the command proposition. This actor must be realized as the actor of the consequent proposition, or as some other role in the consequent proposition. This warning-consequent relationship may also encode as a subordinate construction (see Conditional/Temporal-Result Sentence A, example 94).

110) (B)nigu nay (B)seeDte.
run not fall you may
'Don't run, you may fall.'

111) (B)jo picci maansuci paasi go nay (B)jo tukka peTTede.
that mad man of near go not he you to hit will
'Don't go near that mad man, he may hit you.'

Note: Only the negative imperative mood has been found in base 1 of the examples cited. It is probable that positive imperative mood can occur as well.

3.3 Concession-Contraexpectation Sentence.

+ MAR	Indef AR Cl 1.3 AR Sen AR Cl 1.3	+ BASE	In Cl
Conc Prop	pos/neg	Contr E Prop	neg/pos

Grammatically the Concession-Contraexpectation sentence is a subordinate construction consisting of a margin and an independent base. The margin is dependent because of the obligatory presence of the concessive relator -le kuDa. Semantically the propositions of the Concessive-Contraexpectation sentence are in a cause inverse-effect relationship.

112) (M)jo ja kaam nekerle kuDa (B)dessu wenDlu deyinde.
he that work not do if even ten rupees give I'll
'Although he did not do that work, I'll give him ten rupees.'

The first proposition 'He did not do that work,' has a further implied proposition of the form 'One would expect I would not pay him.' These two propositions are in a cause effect relationship. The concessive marker, however—that is, the relator of the AR construction—indicates that the anticipated result will be replaced by an unanticipated result, in this case, 'I will give him ten rupees.' We are therefore, calling the relationship between the propositions a cause inverse-effect one. The second proposition is realized in the face of the counter influence of the first.

The propositions always have a positive-negative contrast in Kupia. This is usually indicated by a negative particle in either the margin or the base. However, if the encoding is between two seeming positives, one proposition has a culturally determined negative value, or could be paraphrased using a negative particle. Thus in example 92, *goola kerte tatasi* 'you keep on arguing,' implies, 'you don't behave nicely.'

The positive-negative semantic contrast also occurs in the Kupia Antithetical Sentence, and indeed Concession-Contraexpectation and Antithetical Sentences in Kupia are transforms of each other. See examples 113 and 114.

113) (M)ja naaDi aDugu galle kuDa (B)iinjo naaDu baa:wusi punge nay.
that girl steps put if even this boy flute blows not
'Although the girl dances, the boy does not play the flute.'

= = =>

114) (B)ja naaDi aDugu galli (L)gani (B)iinjo naaDu baa:wusi punge nay.
that girl steps put but this boy flute blows not
'That girl dances but the boy doesn't play the flute.'

115) (M)aa:wu gele kuDa (B)ja laTabe naayi.
I go if even she speak not
'Although I went, she did not speak.'

116) (M)amci gerri nijuka je mena tukka sangile kuDa (B)tuuwi
our house sleep inf come saying you to say if even you

nesitasi.
not come
'Although we said, 'Come to our house to sleep,' you don't want to.'

The margin tagmeme of the Concession-Contraexpectation sentence may also be manifested by an interrogative pro-word concessive clause, but the interrogative pro-word in conjunction with the relator *-le kuDa* becomes an indefinite pro-word.

117) (M)iinja naaDuka keddi sangile kuDa (B)widya jeye naayi.
this boy to how much say if even knowledge come not
'Although you speak to this boy much, he does not learn.'

118) (M)keene dekile kuDa (B)batte ja gaaDide Diise nay
where see if even they say that donkey appear not
'Although they look everywhere, they say, that donkey does not appear.'

3.4 Contrafactual Sentence.

+ MAR	AR Cl 1.2 AR Cl 1.1	+ D BASE	Sen Cl
Unful Cond Prop		Unful Outc Prop	contr asp

Grammatically the Contrafactual Sentence is a subordinate construction consisting of a margin tagmeme—subordinated by one of a number of conditional relators—and a dependent base tagmeme. The base tagmeme is grammatically dependent because of the obligatory presence of the contrafactual aspect-tense morpheme in the predicate. This morpheme only occurs in a clause following a margin tagmeme encoding as one of the conditional clauses shown in the formula.

Semantically the Contrafactual sentence propositions are in a cause-effect relationship in which neither the condition nor the result was ever realized. In fact what is understood is the opposite of the apparent positive-negative value of each proposition. Also understood is the speaker's opinion of the certainty of the outcome had the condition been fulfilled.

119) (M)tuuwi ayile (B)dekitam.
you come if seen we would have
'If you had come we would have seen (you).'

That is, in example 119 we see the following implications: a) You did not come; b) we did not see you; and c) your coming would have undoubtedly meant that we would have seen you. Our criteria for semantic independency (see introduction), requires that a proposition makes sense when said in isolation. With this sentence type the base proposition is semantically dependent because knowledge of the antecedent proposition of the margin is necessary to complete its meaning. Also the margin tagmeme is semantically dependent because of the conditional meaning of the relator. Both tagmemes, then, are interdependent grammatically and semantically.

Contrafactual sentence examples in the concordance printout and in other text material have only AR Cl 1.1 clauses as exponents of the margin. However, language helpers accepted AR Cl 1.2. Conditional clauses do not signal person, number, or tense in the predicate. Both negation and imperfect aspect morphemes can occur in the predicate of the margin, but they have not been observed together in the same clause. Negation can occur in either or both bases. If the subject of the margin tagmeme is different from that of the base, it must be indicated by a free form occurrence in the margin.

Only a limited number of clauses and sentence types have been observed in the dependent base. However, we see no reason to expect restrictions in exponents of the dependent base tagmeme, beyond those brought about by the obligatory occurrence of the contrafactual aspect.

120) (M)tuuwi neayile   (B)nedekitadi.
you   not come if   not seen you would have
'If you had not come, you would not have seen.'

121) (M)tuuwi santayi negele   (B)aa:wu tukka aaTu ganTalka dekitayi
you   market not go if   I   you to eight o'clock

dekitayi.
seen would have I
'If you would have not gone to the market, I would have seen
you by eight o'clock.'

122) (M)erike   jale   (B)tukka kicco kaam kertayi?   ge?
knowledge become if   you to what work do I would have Q

dekitadi.
seen you would have
'If I had known, what would I have done to you? You would
have seen.'

The filler of the base tagmeme of example 122 is a Question-Response Sentence. Note that the contrafactual aspect is required on the predicate of each of its bases. This seems to be a restriction of the Question-Response Sentence.

123) (M)tuuwi genle gina   (B)dekitam.
you   buy if particular   seen we would have
'If you in particular had bought it, we would have seen (it).'

124) (M)tuuwi gente tile gina   (B)dekitam.
you   buy if   particular   seen we would have
'If you in particular had been buying it, we would have seen
(it).'

125) (M)tuuwi ayile   kayi (B)dekitadi.
you   come if then   seen you would have
'If you would have come then you would have seen (you).

3.5-6. *Proportional Sentences*.

Introduction. In Kupia two different construction types show the relationship of proportionality (or correlativity). Typical of Indo-Aryan languages, proportionality is signaled using an interrogative pro-word in one proposition, such as *keddi* 'how much,' and a correlative pro-word, such as teddi 'that much,' in the second proposition. The interrogative pro-words are normally translatable as question words, but in the environments of either the relator of the margin tagmeme of Proportional Sentence 1, or the interrogative marker ge of Proportional Sentence 2, they are best translated as indefinite pro-words. The following pro-words and phrases and the corresponding correlative pro-words and phrases have been noted in Kupia:

Interrogative Pro-word or Phrase		Correlative Pro-word or Phrase	
keddoDi	'whenever'	teddoDi	'then'
keddi	'however much'	teddi	'that much'
ketti	'however much (money)'	tetti	'that much'
kicce	'whatever'	ja	'that'
kee:[illegible]ka	'whenever'	tee:yakka	'then'
kee:yakka	'whenever'	ja diisi	'that day'
keen wersi	'in whichever year'	ja diisi	'that day'
ketti	'however much (money)'	donni waan-Talu beeda	'two shares more'
kiisi	'however'	dasi	'that way'
keene	'wherever'	eek waaTu	'one road'

Lexical items and not grammatical markers differentiate direct and indirect (inverse) proportionality.

126) (M)ketti paysalu tukka dile (DB)teddili angka keeDa
how much money you to give ever that much me to finish

getayi.
goes
'However much money he gives to you, that much goes from me.'

In example 126 we have an inverse proportional relationship, since the meaning is, "however much more you have that much less I have." We also see in example 126 the restriction of shared terms—the term being compared must be common in both parts of the sentence. In this case it is the object 'money' which is common.

3.5 Proportional Sentence 1.

+ MAR	Indef AR Cl	+ D BASE	In Cl
Iden Prop	inter pro-word	Corel Prop	corel pro-word

Grammatically Proportional Sentence 1 is a subordinate construction consisting of a margin tagmeme—subordinated by one of a number of conditional or concessive relators—and a dependent base tagmeme. This base tagmeme is grammatically dependent because of the presence of the correlative pro-word (or phrase). This pro-word has an antecedent interrogative pro-word in the margin tagmeme. Semantically Proportional Sentence 1 consists of two propositions in which a constituent of one compares directly or indirectly with a constituent of the other in degree or amount. The relationship between the propositions is a weak cause-effect relationship in which the first proposition sets the standard which causes the action of the second.

The verb of the margin is without tense and does not signal person or number, but it can be inflected for imperfect aspect. The margin can also signal a secondary concessive meaning when its exponent is AR Cl 1.3. Neither past tense nor negative have been observed in the base.

127) (M)tuuwi keddi korpa jale kuDa (DB)teddi deyede.
you how much wish become ever even that much give he will
'No matter how much you want, that much he will give.'

128) (M)kee:yakka korpa jale gina (DB)tee:yakka deyede.
when wish become ever particular then give he will
'Whenever you wish something special, then he will give it.'

129) (M)aam keddi dete tile (DB)jo teddili bedawa deyede.
we how much give keep ever he that much same give he will
'However much we keep giving, he will give the same.'

130) (M)ja naaDi nacuka kiisi aDugu galile (DB)jo naaDu
that girl dance inf how steps put ever that boy

dasi baa:wusi pungitayi. (deku).
that way flute plays he (look)
'However the girl steps the dance, that way the boy plays the flute. (Look!)'

Comment. The relators -le, -le gina are those used in the Conditional/Temporal-Result Sentences A and B, and the relator -le kuDa is the concessive relator. In one sense, then, these sentences could be considered subtypes of Conditional/Temporal-Result A and Concessive-Contraexpectation Sentences. The authors, however, are of the opinion that the proportional relationship is primary and the conditional and concessive relationships secondary. This is because: a) there is a greater restraint in lexical choice in the proportional sentences due to the sharing of constituents within the sentence; and b) the interrogative and corresponding correlative pro-word concord in this sentence type parallels that in Proportional Sentence 2.

3.5 Proportional Sentence 2.

+ D BASE 1	Indef Cl	+ D BASE 2	In Cl
Iden Prop	inter pro-word or corel pro-word	Corel Prop	corel pro-word

Grammatically the Sentence is a coordinate construction of two dependent bases. The bases are grammatically dependent because both have the obligatory presence of an interrogative pro-word or a correlative pro-word. The pro-word of the first tagmeme is the antecedent of the pro-word of the second.

Semantically the propositions of Proportional Sentence 2 are in a proportional relationship in which a constituent of one compares directly or indirectly with a constituent of the other in degree or amount. The relationship between the propositions is a cause-effect relationship. Both tagmemes are semantically dependent because neither can be said in isolation and make sense.

132) (DB)ketti paysal tukka dilo ge (DB)tetti paysal
how much money you to gave he ever that much money

keeDa geli.
finish went it
'However much money he gave to you, that much ran out.'

133) (DB)angka keddi dilo ge (DB)tukka taddili samanumu
me to how much he gave ever you to that much same

dilo.
gave he
'Whatever he gave to me, that same he gave to you.'

134) (DB)tukka teddili saaman dilo ge (DB)angka teddili
you to that much goods gave he ever me to that much

saaman dilo.
goods gave he
'He gave to you the same amount (type) of goods as he gave to me.'

135) (DB)aa:wu ketti paysal dilayi (DB)jo donni waa:Talu beda dilo.
I how much money gave I he two shares more gave
'However much I gave, he added twice as much.

In example 135, we note that ge is missing from the first base. This may be due to the particular correlative pro-word construction occurring in the second base.

Contrast. We set up Proportional Sentence 1 and Proportional Sentence 2 as different types because of the grammatical and semantic differences. The grammatical differences are clearly seen in the formulas—Proportional Sentence 1 is a subordinate construction and Proportional Sentence 2 is a coordinate construction. Proportional Sentence 1 may not take a past tense morpheme in the predicate of the base. Semantically the relationships differ because of the possibility of condition and concession encoding along with the proportional meaning in one and not the other. The margin of Proportional Sentence 1 can have a simple conditional relator *-le*, 'if'; it can have the relator *-le gina*, 'if particular'; or it can have the concessive relator *-le kuDa*, 'if even.' These three relators impose secondary semantic meanings on to the primary proportional relationship.

Proportional Sentence 2 does not have the secondary semantic meanings of Proportional Sentence 1. In addition, although Proportional Sentence 2 bases must have the same tense, it may be past, present, or future. The use of the same correlative pro-word in both tagmemes may occur in Proportional Sentence 2; it has not been observed in Proportional sentence 1 (see example 134).

3.7 Reason-Result Sentence.

Introduction. Reason-Result sentences have a logical temporal relationship in which the reason precedes the result in time. In English this relationship does not restrict the linear ordering of the propositions in a sentence.

a) Because he is a good man I give him money.
b) I give him money because he is a good man.

In Kupia, however, temporal relationships are much more focal, and propositions occurring first in time must occur first in the sentence.

136) (B)jo cengngilo maansu (L)jeweci risso (B)aa:wu jowaka Dabbulu
he good man therefore I him to money

daa: tatasi.
give am
'He is a good man, therefore I am giving him money.'

137) (M)jo cengngilo maansuci risso (B)aa:wu jowaka Dabbulu daa: tatasi.
he good man because I him to money give am
'Because he is a good man, I am giving him money.'

3.7a *Reason-Result Sentence A.*

+ BASE 1	Par / Dis ARR Cl In Cl	+ LINK	Ref AR Ph cj	jeweci risso ganuka
Resn Prop		Resn-Rslt Pivot		'therefore'

+ BASE 2	In Cl
Rslt Prop	

Grammatically the Reason-Result Sentence A is a coordinate construction consisting of independent base, link, and independent base tagmemes. Semantically the propositions are in a cause-effect relationship in which the first proposition stands as reason, cause, or stimulus and the second as result, effect, or response to it. The link tagmeme plays a very important role in this sentence type since it sums up the first proposition and labels it as the reason or cause of the result proposition. We have therefore called its semantic function Reason-Result pivot.

The link jeweci risso 'for this reason,' is also used as a sentence introducer in discourse, in which case the reason proposition may be a paragraph or discourse.

138) (B)jooka paDto noppi baar tili (L)jeweci risso (B)jo DakTar
him to back pain because therefore he doctor

appiste gelo.
office to went
'Pain had come to his back, therefore he went to the doctor.'

139) (B)iinja karanTu jowayingka kaawale bette (L)jeweci risso
this electricity them to wanted they say therefore

(B)ja jaalapuTu Daam banda gella.
that Jalaput dam built complete
'They wanted electricity, they say, therefore they built the Jalaput dam.'

140) (B)waagu caamu sukayti risso (L)jeweci risso (B)etki jiini
tiger skin drying because therefore all people

kuuDanu yaalana kerla.
included joked did
'Because the tiger skin was drying, therefore all the people joked together.'

In example 140, we have a Reason-Result Sentence B margin as the exponent of the base 1 tagmeme. The authors are aware at this point that this example perhaps belongs more properly with Reason-Result Sentence B because of this fact, but at this point in the analysis have chosen to leave it here to await further analysis.

141) (B)ikkabaTTi aa:wu tukka nampa jalay (L)ganuka (B)tuccite
now from I you to merciful become therefore your to

aa:wu anne renDo moosimi kicco keri nay.
I again different deception what do not
'I have pardoned you from now, therefore I will never deceive you again.'

142) (B)amca koDDoka jo biye nay (L)ganuka (B)aam eddiloso
our words to he fear not therefore we smallest one

naaDuka kaDa nemunde.
boy to fetch take we will
'He (older boy) won't take notice of what we say, therefore we'll take the younger boy.

3.7b Reason-Result Sentence B.

+ MAR	ARR Cl	+ BASE	In Cl
Resn Prop		Rslt Prop	

Grammatically the Resason-Result Sentence B is a subordinate construction consisting of a margin and an independent base. The margin is dependent because of the obligatory presence of the reason relator. Semantically the propositions are in a logical cause-effect relationship in which the first proposition is a reason and the second proposition is the result of that reason. The first proposition is dependent semantically because of the causal meaning of the relator.

143) (M)jo aasim suddo-ci risso (B)bokirtasi.
he Asim person because play I
'Because he is an Asim person, I horseplay with him.'

144) (M)angka peeTi noppici risso (B)Daktar appiste gecinde.
me to stomach in pain because doctor office to go I will
'Because of pain in the stomach, I will go to the doctor.'

145) (M)angka peeTi noppi ayilici risso (B)Daktar appiste
me to stomach in pain came because doctor office to

gecinde.
go I will
'Because pain came to my stomach, I will go to the doctor.'

146) (M)buu:wi murki geti risso (B)ja teer booda waDaytayi.
ground on dirty go because that female person is sweeping
'So that the dirt on the ground will be cleaned up, the woman is sweeping.'

Examples with ARR Cl relator anduka 'because.'

147) (M)dooro baabu sangile anduka (B)maantrumu iinja aa:wu
foreign man say when because you know this I

sangilayi.
said
'Because the foreign man said it, you know, I said it.'

148) (M)ja muni tilli anduka (B)ja meenta kayye nay.
that ghost remaining because that bird eat not
'Because that ghost has remained, that bird is not eating.

149) (M)kanda nedili anduka onDaD nedili anduka saapa
vegetables not giving because honey not giving because mat

nedili anduka (B)aade gecca.
not giving because there go imp
'Because they did not give vegetables, because they did not give honey, because they did not give a mat, go there and see.'

3.8 (Dependent) Negative Conditional Sentence.

+ MAR	AR Cl 1.5	nenjile	+ BASE	In Cl
Cond Prop	neg	'if it is not'	Consq Prop	hypothetical action

Grammatically the Dependent Negative Conditional Sentence is a subordinate construction consisting of a margin tagmeme and an independent base tagmeme. The margin is dependent because of the presence of the relator. Semantically the Dependent Negative Conditional sentence propositions are in a cause-effect relationship. The margin proposition is semantically dependent because of the conditional meaning of the relator.

The Negative Conditional Sentence is semantically dependent because it cannot be said in isolation and make complete sense. That is, nenjile 'if this is not so' requires knowledge of an antecedent proposition. Normally this antecedent proposition occurs immediately before the word nenjile.

The Dependent Negative Conditional sentence can occur as an exponent of base 2 of the Alternative-Consequent sentence and as an exponent of base 2 of the Antithetical sentence. The following example shows it embedded in the Antithetical sentence.

150) (joewu amba kawula gani) (M)nenjile (B)katti naayi.
they mangoes eat will but otherwise eat not
'(They will eat mangoes but) otherwise they will not eat.'

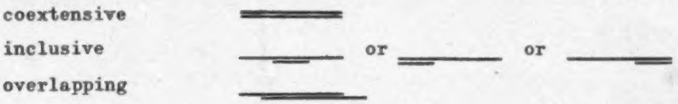
See also Alternative-Consequent sentence examples, and examples 41 and 42 of Antithetical sentence.

4. Chronological Relationships.

There are two major subclasses of relationships among propositions in which chronological time is in focus; they are Simultaneous and Sequence.

4.1 Simultaneous Relationships.

Propositions are in a simultaneous relationship when time is focal and when the relationship is not sequential. That is, there must be some time common to both propositions. The relationship may be coextensive, inclusive or overlapping. A coextensive (coterminus) relationship is defined as a simultaneous relationship between propositions which both begin and end at the same time. An inclusive relationship is defined as a simultaneous relationship (non-coextensive) in which the duration of one proposition occurs within the time span of the other. An overlap relationship is defined as a simultaneous relationship in which one proposition begins before a second begins and ends before the second ends. Propositions having an overlap relationship are not being discussed here as they encode above sentence level. Graphically these relations may be shown as follows:



Coextensive and Inclusive Relationships. In Kupia both of these relationships encode as two tagmemes. They are signaled in part by grammatical forms and in part by the varying semantic contexts of these forms.

151) (M)ja naaDi aDugu galli podi (B)iinjo naaDu baa:wusi pungitayi.
that girl steps put item this boy flute blows
'While the girl dances the boy plays the flute.'

152) (M)nepaa:wili podi (B)suuno dassul jalo.
not reaching time dog meet became
'Before he reached (while coming) he met a dog.'

We consider the propositions of example 151 to be in a coextensive relationship. However, there is no continuative marker in pungitayi 'he blows.' It is the nature of flute blowing and its semantic context—the context of dancing to music—that leads us to say that the dancing occurred coextensively with the flute blowing. In example 152 we have an inclusive simultaneous relationship. Specifically it shows a punctiliar action occurring with a durative action. The meeting with the dog occurs momentarily within the time span of the man's coming. These examples indicate, then, the need to have information about both the grammatical form and the semantic meaning of the tagmemes. Only then can the relationship between the propositions be specifically established.

4.1a Simultaneous Sentence A.

+ MAR	AR Cl podi AR Cl kayi Cl -te	+ BASE	Sen In Cl
Iden Prop	time period	Simul Prop	

Grammatically this Simultaneous Sentence is a subordinate construction consisting of a margin and an independent base tagmeme. The margin tagmeme is dependent because of the obligatory presence of a relator or a participial suffix. The margin can be manifested by axis-relator clauses or an imperfect participial clause. The base tagmeme grammatically encodes as an independent clause which may or may not have the imperfect morpheme -te in the predicate. Semantically the first proposition must be an event in a period of time during which the second proposition can occur. This encodes grammatically by use of the imperfect aspect -te on the verb, or by the relator podi 'time.' Examples 156 and 157 are inclusive punctiliar; examples 153 and 155 are inclusive repetitive punctiliar; and example 151 is coextensive.

153) (M)agge aa:wu neepal tili podi (B)roojuka bajarte
before time I Nepal staying time daily bazaar to

gete tilayi.
go I used to
'Before, during my stay in Nepal, I used to go to the bazaar daily.'

154) (M)nekele podi (B)gerri tayede.
not working time house in remain he
'While he is not working he will stay in the house.'

155) (M)jo miiTing kera sangiti podi (B)eek maansu oggar kongkilte
that meeting doing saying time one man much coughing

til .
did
'During the meeting speaking time one man was coughing a lot.'

The verb of the axis of AR Cl kayi in this sentence type must be in the imperfect progressive aspect. This contrasts with the Sequence Sentence A margin which also takes AR Cl kayi, but requires that the verb be either imperfect or perfect aspect.

156) (M)miiting kera laTabte tatikayi (B)jo seeDa kera mora gelo
meeting doing speaking he falling doing dying went.
'It was during a conversation at a meeting that he fell over and died.'

157) (M)appe jeewu gete tatikayi (B)aa:wu dekilayi.
now they going I saw
'Just now as they were going, I saw them.'

In examples 151-157 the margin proposition answers the question 'when' of the event or state of the base proposition. In the following examples the margin proposition answers the questions, 'How?' or 'Under what circumstances?'.

158) (M)ja awwoka ammoka kaka erike neente
that mother to mother to whoever to knowledge not being

(B)lungka cooru uTTa gecula.
hiding thief moving go they will
'Without their mother or father or anyone knowing, they will go off like thieves hiding.'

159) (M)kaccitumu naayi nemente (B)rooju kanTika eek wiseek
certainty not not saying day all together one twenty

jiini jawusu santayi gecuka gecumde.
people become market to go inf go we will
'Without a doubt, every day some twenty of us will go to a market.'

160) (M)ja kaarimi nekerte (B)maantrumu gaa:wa loonica ko kuDa
that ritual not doing you know village dwellers who ever

otta geca kera kangka ge pingka ge kicco nesiti.
there going doing eat inf or drink or what don't want
'Unless they do that ritual, you know, none of the villagers, having gone there, will want to eat or drink anything.'

4.1b Simultaneous Sentence B.

+ BASE 1	In Cl	+ BASE 2	In Cl
Iden Prop		Simul Prop	

This Simultaneous Sentence is a coordinate construction consisting of two independent bases requiring the past imperfect tense-aspect in base 1, and some form of the perfect aspect in base 2. Semantically the proposition having the perfect aspect is contained within the time span of the proposition having the imperfect aspect.

161) (B)appe jeewu gete tila (B)aa:wu dekilayi.
now they going were I saw
'Just now I saw them as they were going.'

162) (B)jo aapiste gete tilo (B)anne waaTe eek suuno dekilo.
he office to going was another road on one dog saw
'As he was going to the office he saw a dog on another road.'

4.2 Sequence Relationships.

Propositions are in a sequence relationship when they occur one after another in time, without overlap. That is, there is no common time between the two propositions. In Kupia we posit: Sequence Sentences A and B, and Conditional/Temporal-Result Sentence B. For a description of the last sentence subtype, see section 3.1b.

4.2a Sequence Sentence A.

```
             ¦ AR Cl (taruwata)
             ¦ AR Cl kayi                          ¦ Sen
+ (MAR       ¦ Cl -a              )ⁿ  + BASE       ¦ In Cl
 ____________+____________________      ___________+______
  Prior Prop ¦                          Final Prop ¦
```

Grammatically the Sequence Sentence A consists of one or more margin tagmemes and an independent base tagmeme. The margin tagmemes are dependent because of the obligatory presence of a relator or participial suffix. Semantically the propositions of this sentence are in a sequential relationship in which the propositions follow one another in time. The linear ordering of the tagmemes corresponds to their sequence in time, therefore the tagmemes are not permutable.

Margin Exponent Cl -a. This exponent is by far the most frequently used of the exponents of the margin of this sentence. It is the perfect participial form, and does not signal person, number, or tense. It is normally used when there is no change in subject from the margin to the base tagmeme. However, if the exponent of the margin is a receptor clause, the subject of the base is the receptor of the receptor clause, see example 163. The reverse of this may also be true in which the subject of the margin becomes the receptor of the receptor clause.

163) (M)angka telivi ta: kera (B)aa:wu jiinlayi.
me to knowledge remaining doing I passed
'Knowledge having stayed with me. I passed (the exam).'

In the margins of examples 163 and 164, we see two juxtaposed verbs in the perfect participial form. These are analyzed as one verb phrase. Similarly the perfect participal uTTa in the base of example 163 is analyzed as part of the verb phrase uTTa gelo. 'He went away.'

164) (M)angka peTTa kera (B)uTTa gelo.
me to hitting doing moving went
'Having hit me, he went away.'

165) (M)anne cammo gena kera (B)bommalu teyyaru kelo.
again skins buying doing copies of animals ready did he
'Then, having bought skins he made them into likenesses of animals.'

166) (M)jo maansu otta geca (M)kaam kera (B)ayilo.
that man out going work doing came he
'That man, having gone out, having done the work, came back.'

The margin predicate may also take the -*aD* or -*wini* causative infixes. The suffix -*ci* probably means 'and then.'

167) (M)miiTing keeDaDakaci (B)Tii parTi kela.
meeting completed having tea party did they
'The meeting having finished, they held a tea party.'

168) (M)santayi gecaDakaci (M)ja saaman wikaDakaci (M)Dabbulu
market gone having that goods sold having money

aana deewinikaci (B)aa:wu amci gaa:wi gecindo.
bringing given having I my village to go will
'After I have gone to the market, after I have sold the goods, and after I have given the money, I will go to my village.'

169) (M)wiseek wersu wayasu jowaka jewinikaci (M)saaluru uTTa
twenty years of age him to become having Salur moving

geca (B)cettar jonno tilo.
going four months stayed he
'Having become twenty years old, and having gone to Salur, he stayed there four months.

Note that in example 169 the first margin has the causative infix -*wini* and the second does not.

170) (M)jo mahaaraanoka santaanum nenjaDakaci (B)jo kicco kerlo?
that big rajah to heir not being able he what did he
'Not being able to have an heir, what did that big rajah do?'

In example 170, circumstance and not temporal sequence seems to be more in focus.

Margin Exponent AR Cl kayi. This is a stylistic variant which seems to indicate immediate sequence, but which certain speakers use more than others. The subject of the margin and base tagmemes may be the same or different. The margin can take the optional completative adverb, *sari*. The verb of the axis of the AR Cl *kayi* must be in either the imperfect or perfect aspect.

171) (M)jo sagum duuri getikayi (B)suuno dassul jalo.
he some distance gone having dog meet became
'As soon as he had gone some distance, he met a dog.'

172) (M)iinjo kaam nekertikayi sari (B)abbosi goola kerlo.
this work not doing completely father his angry talk did
'When he had not done this work completely, his father scolded him.'

173) (M)angka peeTi noppi kertikayi (B)Daktar appiste gecinde.
me to stomach in pain doing doctor office to go I will
'As soon as I have stomach ache, I will go to the doctor.'

174) (dasse taa: gelle) (M)nowwu jonno ge dessu
(like this remaining complete when) nine months or ten

jonno ge jatikayi sari (B)jeeka kasTum ayili.
months or become having completed her to trouble came
'(When she had remained like this) as soon as nine or ten months had passed, trouble came to her.'

Margin tagmeme AR Cl (taruwata). The exponent may have the time word *taruwata* 'after,' *pimaTi* 'after,' or *tinto* 'from' as relators. *taruwata* and *pimaTi* are both loan words from Telugu, and represent different dialects of Telugu. Sequence sentences of this type typically have only one margin tagmeme.

175) (M)iinja aTTu poddulu looga kicco jawusu jantu peTli pimaTi
this eight days within what become animal hit after

(B)teer boodal tenu munsu boodalu maantrumu goppaga
female persons with male persons only much

bokurla.
fool about they will
'When they have shot some kind of wild animal within these eight days, the men and the girls will horseplay together.'

176) (M)iinja wiTTim panDugu sumaaru sukrari saaDupa kerli tinto
this Wittim festival about Friday offering did from

(B)Demsa mena derula.
dimsa dance saying begin they will
'This Wittim festival about Friday, after making an offering, saying that they will dance the dimsa, they will begin.'

177) (M)appe wayjak ayili tinto (B)satarekka eeki suTTi bajarte
now Visakhapatnam coming from weekly one trip bazaar

getasi.
to go I
'Now, since my arrival time in Visakhapatnam, I go to the bazaar once a week.'

178) (otta tinto) (M)buudar santa keeDa geli taruwata (M)raati
(there from) Wednesday market finishing gone after night

payeDakaci (B)lekwari santa makawarum ase.
fade having Thursday market Markavarum is
'From there (in the story) Wednesday market having finished, night having finished, on Thursday there is a market at Markavarum.

4.2b Sequence Sentence B.

+ BASE 1	In Cl	+ BASE 2	In Cl
Prior Prop		Final Prop	

Grammatically Sequence Sentence B is a coordinate construction consisting of only two independent juxtaposed bases. Semantically the propositions of this sentence are in a sequential relationship. There is no common time to the two propositions.

This sentence contrasts with the Additive sentence, not only in the different semantic relationship between the propositions, but also because of the obligatory presence of at least one time word in the sentence to show sequence. Typically we have two time words, one showing a prior time, and the other subsequent time.

The semantic relationship places tense restrictions upon the sentence so that it is not possible for the tense of base 1 to be subsequent to the tense of base 2.

179) (B)agge tuuwi donni wanTalu oggar galte tiladi (B)appe aa:wu
before you two shares more do used to keep now I

donni wanTalu tawuki galtasi.
two shares less do I am
'Before you used to do two shares more, now I am doing two shares less.'

180) (B)agge gaDiyo jaa tilayi (B)appe angka sawukarimi
before lazybones becoming was I now me to business

jarugu jali.
accomplished became it
'Previously I was a lazybones, now I have become a useful citizen.'

Sequence Margins at Discourse Level. Cl -*a*, AR Cl *kayi*, and Cl (*taruwata*) sequence margin tagmemes (and their variants) also function at paragraph and discourse level, providing sequence continuity to the events being described. Frequently the predicate of the margin is a lexical repetition of the final predicate of the previous sentence. There are other methods of signaling sequence continuity, but they are to be described elsewhere. These are shown here to form a unit with Sequence Sentence A. The examples show the last part of one sentence and the margin of the following sentence.

a) Margin exponent Cl -*a*.

181) gorrelu kanDula. (S)kanDa kera...
goats kill they will killing doing
'They will kill goats. Having killed the goats...'

182) ambo ceTTe uTTa gelam. (S)ambo ceTTe uTTa geca kera...
mango tree up going went we mango tree up going going doing
'We went up the mango tree. Having gone up the mango tree...'

183) ...caala andar jaa geli. (S)jaa gecaDakaci...
very dark becoming went becoming having gone
'...it became very dark. Having become very dark...'

184) ...iinjo waagu sangilo. (S)sangaDkaci...
this tiger said he having said
'...this tiger said. Having said this...'

b) Margin exponent is AR Cl *kayi*.

185) ... naaDuka dilan. (S)detikayi...
boy to gave he as soon as he had given...'
'...he gave to the boy. As soon as he had given...'

186) ...uTTa gela. (S)uTTa getikayi sari...
out went they out having gone completely...
'...they went out. As soon as they had gone completely out...'

c) Margin tagmeme Cl (*taruwata*).

187) ...otta tinto gerri kaDa aanula. (S)gerri
there from house in carrying bring they will house in

kaDa aanli taruwata...
carrying bringing after
'...from there they will bring (the things for the wedding)
into the house. After having brought them into the house...'

D. *Sentence Operations.*

We frequently find in Kupia, and it is supposed in most other languages, structures which have been joined together, and which occur in either margin or base slots (in most of the sentence types that we have posited. We are calling the joining together of structures of the same type an 'Operation.' Operations may join structures by conjoining (with medial link 'and'), alternation, antithesis, and parataxis. Operations in Kupia occur at various heirarchical levels, but for the purpose of this paper we are only considering those pertinent to sentence level.

The Conjoined, Antithetical, Alternative (but probably not Alternative-Consequent), and Additive sentence types posited in this paper, are, therefore operations in this sense of the term. These sentences can fill the base slots of other sentence types without grammatical change. It remains for us to describe operations as they apply to margin slots.

Operations on Sentence Margins. The only form of joining in the margin slot that has been found in Kupia is joining by parataxis. That is, juxtaposed tagmeme constructions are found as fillers of the margin slot of margin-base type sentences. In keeping with our definition, we here require that tagmemes have the same relator, or relators which are of the same class. That is, where two or more relators are used to signal the same relationship, these may occur in the same margin complex, and retain the same class meaning as that of a single margin. For example, in the English sentence, "Since you come to work late every day, and because you do not do your work efficiently, I am forced to dismiss you." we have two cause margins. One clause is signaled by the relator *since* and the other by the relator *because*. The two of these preserve the same class meaning of cause. We say then, that they are in an additive relationship to each other, both being causes of the following result proposition. We are interested in showing some examples of Kupia sentences having propositions occurring juxtaposed in the margin complexes. We want to examine the relationships existing between these margin propositions.

The first examples show paratactic operations in the margin slot of the Conditional/Temporal-Result Sentence A.

188) (M)paani neaanile nerandile ne geeru waDayile ne paałalu
water not bring if not look if not house sweep if not clothes

keeDile ne boodaluka kełayile (B)(tuwwi kiccoka inne
wash if not children to play with if you how here

tangka.)
remain inf)
'If you don't bring water, if you don't cook, if you don't sweep

the house, if you don't wash the clothes, if you don't look
after the children, how will you stay in the house?'

In this example the margin propositions are in an additive relationship to each other and are permutable. They all form part of the condition complex that if the girl does not do these things she will not be allowed to stay in the house. The margin, although containing five separate propositions, cannot be called an Additive Sentence because all od the propositions are grammatically dependent. We call such a composite structure an Additive Conditional Construction.

189) (jo maansu gullo, laTabe nay gani) (M)sangile suunile (B)jowaka
(that man dumb speak not but) speak if hear if him to

kaam deyinde.
work give I will
'(That man is dumb; he cannot speak but) if someone speaks
if he can hear, I will give him work.'

In this example the propositions of the margin of the Conditional/Temporal-Result sentence are not permutable. suunile 'hear if' builds upon sangile 'speak if.' The relationship between the two margin propositions is an additive one with a secondary sequencial component.

The next example shows the paratactic operation in the margin of a Conditional/Temporal-Result Sentence B.

190) (M)ja bangar kaDa gellekayi ja wenDlu kaDa gellekayi
that gold fetching go if that silver fetching go if

(B)teddoDi ja ko jawusu otta palum kawula.
then that who becomes there eat they will
'If they fetch the gold, (and) if they fetch the silver then
whoever there be will eat there.'

Here the margins are additive.

In example 178, the paratactic operation is made in the margin slot of Sequence Sentence A. Note that the relators are from AR Cl (taruwata) and Cl -a clauses respectively.

In each of the following two examples an operation by parataxis is made in the margin slot of a Concessive-Contraexpectation sentence.

191) (M)'gani' tile kuDa nenjile kuDa (B)bedede.
gani remain if even if it is not even it will be understood
'Although gani is there, although it is not there, (the sentence) will be understandable.'

Note that gani is the Kupia word for 'but.'

192) (M)genle kuDa nenjile kuDa (B)baada nay.
buy if even if it is not even bad not
'Although you buy, although you don't buy, it doesn't matter.'

In both of these examples we see Alternative relationships (pos/neg) between the propositions of the margin. Only two propositions are possible and only one may be chosen. One may be tempted to say this may be an additive relationship so as to say, 'Although gani is there and although gani is not there the sentence will be understandable.' However, in any one sentence gani is either there or not there. Because of this and because the relationship has a pos/neg contrast, we say it is alternative.

Summary. Operations found to date in the margin slots of subordinate sentences have all been paratactic. The semantic relationships between the propositions in the margin slots are either additive or alternative with secondary relationships encoding with these. Operations in the margin slot using the links ci 'and,' gani 'but,' or ge ge 'or' have not been found. It is considered that if such constructions do exist in Kupia, they are of infrequent usage.

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Footnotes.

[1] Oriya is the regional language of the State of Orissa, India. Kotia-Oriya, a dialect of Oriya, is the lingua franca among tribal people in the area where Kupia is spoken. Oriya, Kotia-Oriya, and Kupia are Indo-Aryan languages. For a comparison of the vocabularies of Kotia-Oriya and Kupia, the reader may see volume four of this report.

[2] Three definitions of a sentence are:

a) Longacre (1964:125), "Definition of a sentence: a class of syntagmemes of a hierarchical order ranking above such syntagmemes as the clause and below such syntagmemes as the paragraph and discourse."

b) Longacre (1967:18), "Both traditional classifications fail to grapple with the realities of the sentence as a layer of clause combination."

c) Longacre (1970b:151), "...we derive a model of sentence structure found in many parts of the world, viz. a unit consisting of one or more independent clauses, plus or minus one or more dependent (subordinate) clauses."

Abbreviations.

The abbreviations used in sentence formulas.

Box 1.	BASE	Base
	D BASE	Dependent base
	LINK	Link
	MAR	Margin
Box 2.	AR	Axis-Relator
	cj	conjunction
	Cl	Clause
	Dis	Discourse
	In Cl	Independent Clause
	Indef	Indefinite
	Par	Paragraph
	Ph	Phrase
	Ref	Referent
	Sen	Sentence
Box 4.	Add	Additional
	Adver	Adversative

	Alt	Alternative
	Ant	Antonym
	Anti	Antithesis
	Conc	Concessive
	Cond	Conditional
	Conn	Connector
	Consq	Consequent
	Contr E	Contra-Expectation
	Coor	Coordinate
	Corel	Correlative
	Expec	Expectation
	Explan	Explanation
	Iden	Identity/Identification
	Neg	Negative
	Outc	Outcome
	Para	Paragraph
	Prop	Proposition
	Ques	Question
	Resn	Reason
	Resp	Response
	Restat	Restatement
	Rslt	Result
	Simul	Simultaneous
	Spec	Specific
	Thes	Thesis
	Unful	Unfulfilled
	Warn	Warning
Box 5.	asp	aspect
	contr	contrafactual
	corel	correlative
	decl	declarative
	imper	imperative
	inter	interrogative
	genr	generic
	neg	negative
	P	Predicate
	pos	positive
	pot	potential
	spec	specific
	S	Subject
General	Dep	Dependent
	Excl	Exclamation
	Voc	Vocative
	Oblig	Obligatory
	hypot	hypothetical
	subord	subordinate

Abbreviations used to label tagmemes in the sentence examples.

B	BASE

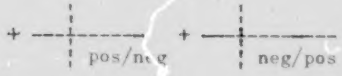
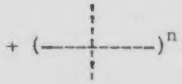
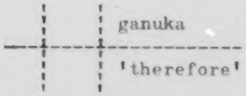
DB	Dependent Base
L	Link
M	Margin
S	Sentence

Abbreviations used in English gloss of Kupia sentence examples.

emp	emphasis
imp	imperative
inf	infinitive
k	causative
Q	question marker

Conventions.

The conventions used in the sentence formulas are:

	Shows concord and co-restrictions between tagmemes. This shows that a positive to negative contrast exists between the tagmemes—the first can be either negative or positive; the second must be the opposite.
	The tagmeme is obligatory and may be repeated any number of times.
	Box 3 entries are only made when all the Kupia words or phrases that are exponents of the tagmeme are listed. In such cases, the gloss is given in box 6. We have only used this for the link tagmeme.
(taruwata)	One Kupia word is used to represent a grammatical class of words.
===>	Means to transform what precedes the symbol into what follows it.
...	Some unspecified Kupia language occurs here.

( )	a) Part of the Kupia example not relevant to the discussion. b) Encloses material in the free translation which has been added to make the full meaning more readable.
/	Items either side of the line are alternatives.

INDEX TO KUPIA

A. Introduction 125

- 1. General 125
- 2. Sentence Theory 127
- 2.1 Hierarchy and Sentence 127
- 2.2 Tagmemes in Multi-Propositional Sentences 131
- 2.3 Sentence Construction 132
- 2.4 Sentence Subtypes 133
- 2.5 Sentence Contrast 133
- 2.6 Secondary Relationships 140

B. Sentence Periphery 140

C. Sentence Patterns 144

- 1. Conjunction 144
- 1.1 Antithetical Sentence 144
- 1.1a-b Antithetical Sentences A and B 144
- 1.1c Antithetical Sentence C 147
- 1.2 Exhaustive Sentence 147
- 1.3 Additive Sentence 149
- 1.4 Conjoined Sentence 150
- 1.5 Question-Response Sentence 152
- 1.6 Positive Echo Sentence 153
- 1.7 Negated Antonym Sentence 154
- 1.8 Recapitulation Sentence 154
- 1.9 Paraphrase Sentence 155
- 1.10 Generic-Specific Sentence 156
- 1.11 Statement-Explanation Sentence 157
- 2. Disjunction 158
- 2.1 Alternative Sentence 158
- 2.2 Alternative-Consequent 160
- 3. Cause-Effect 161
- 3.1 Conditional/Temporal-Result 162
- 3.1a Conditional/Temporal-Result Sentence A 163
- 3.1b Conditional/Temporal-Result Sentence B 164
- 3.2 Warning-Consequent Sentence 166
- 3.3 Concession-Contraexpectation Sentence 167
- 3.4 Contrafactual Sentence 169
- 3.5 Proportional Sentence 1 171
- 3.6 Proportional Sentence 2 172
- 3.7 Reason-Result 174
- 3.7a Reason-Result Sentence A 174
- 3.7b Reason-Result Sentence B 176
- 3.8 Dependent Negative Conditional Sentence 177
- 4. Chronological 177
- 4.1 Simultaneous 178
- 4.1a Simultaneous Sentence A 179
- 4.1b Simultaneous Sentence B 180
- 4.2 Sequence 181

4.2a Sequence Sentence A. 181
4.2b Sequence Sentence B. 184

D. Sentence Operations 186

References 188

Footnotes 190

Abbreviations 190

Conventions 192

Sentence Patterns in Tamang

Fay Everitt

A. Introduction.

The purpose of this paper is first of all to provide an outline of the sentence system of the dialect of Tamang spoken in Sahugaon, Tupche Panchayat, Nuwacot Jilla (West No. 1) of the Bagmati Anchal; and secondly, to provide material which may be useful for comparison with the grammatical systems of other languages of Nepal.

The reader must bear in mind that this paper presents a preliminary analysis only and further detailed study will be necessary.

Although both the phonological sentence and the grammatical sentence have been considered, it should be noted that there is not always a one-to-one correspondence between the two and in this paper more attention has been given to the grammatical sentence. Further study of intonation patterns is needed.

The following is a brief statement of the phonology of Western Tamang and the orthography used for examples given in this paper.

stops	p	t		ṭ		k
	ph	th		ṭh		kh
affricates			ts			
			tsh			
fricatives			s			
nasals	m		n			ng
liquids			l			
			r			
glides	w				y	
	wh					

Figure 1. Consonants in Tamang.

i u
e o
a

Figure 2. Vowels in Tamang.

c = (ts) affricate
capital T = (ṭ) retroflexed consonant
v = short vowel
vv = long vowel
vh = lax vowel
'v = tense with tone high, falling
v = tense with tone high, basically level
'vh = lax with tone mid, falling
vh = lax with tone low, basically level
Initial phonetic voiced stops have been retained in transcription, though not analyzed as phonemic.

Figure 3. Orthographic Conventions.

Mr. Karna Bahadur Tamang, 28 years of age, and Mr. Bhajuman Tamang, 20 years of age, have served in the capacity of language assistants. I am indebted to them for the excellent help given in checking the data upon which this analysis is based.

I am indebted to Dr. Kenneth L. Pike for providing the theoretical background for this paper. I am also very much indebted to Dr. and Mrs. Ronald L. Trail for the consultant help they have provided throughout the analysis. In addition I want to thank Miss Doreen Taylor for the time given to checking through the various drafts of this paper and for her helpful comments and suggestions.

This work has been done pursuant to an agreement of cooperation between the Summer Institute of Linguistics and Tribhuvan University and has been carried out under the auspices of the Institute of Nepal and Asiatic Studies of the University. The author wishes to express gratitude to the Institute of Nepal and Asiatic Studies for their part in making this research possible. I have also benefited greatly in the analysis of this paper from a computer concordance of Tamang texts, processed at the University of Oklahoma in a program supported by National Science Foundation grant number GS-1605.

B. The Tamang Sentence System.

Major sentences are characteristically composed of an optional prenuclear periphery; an obligatory nucleus manifested by a simple, coordinate, or complex construction; and an optional post-nuclear periphery. Minor sentences such as sentence fragments, responses, exclamations, and verifications which are semantically complete, but structurally incomplete, are beyond the scope of this paper.

Simple sentences are composed of peripheral items plus any single, independent clause. However, in this paper we are concerned with sentences as paired propositions only and therefore the simple sentence will not be dealt with further.

Peripheral items are regarded as such because they make little or no difference to the basic structure of the sentence and may occur with almost any sentence type. It is probable that there are some semantic restrictions of occurrence but this has not yet been fully investigated.

1. Peripheral Items.

Vocatives and Vocative Phrases. Vocatives include names and kinship terms of address, for example:

oh, 'anyii ...	Oh, Aunty, ...
ee, kon, ...	Hey, Kon, (sister's son) ...

Names and kinship terms of address occur in pre-nuclear position to engage attention and in the post-nuclear position as the usual form of address used in conversation.

Responses. Responses typically occur in the pre-nuclear position. They include:

aa/yaa, ee/yee	Affirmative responses
'dehmen	'that's true'
'anam	emphatic affirmative

Conjunctions. These are sentence introducers which form a connection with the preceeding sentence or paragraph.

'pheeri	'then'
asyihm/syihm	'and'
'taipuni '	'even then, however, therefore'
'pang-cim	'therefore'
'taale 'pang-sam	'because'

The conjunction 'taale 'pang-sam does not occur often. There are no examples in text material collected so far, but it has been heard in conversation. It is an idiomatic expression sometimes used in reply to a question using taale 'why?'.

Adverbs and Adverbial Phrases. These typically occur in the pre-nuclear position, but may permute to post-nuclear position, which is most probably for emphasis.[1] Examples:

dahpam	'up until now'
'dehre/'dehre-m	'now/now-emp'
'likkyam	'later'
'pheeri 'likkyam	'then later'

Reported Speech Particle. The reported speech particle, -*ro*, occurs frequently in conversation as in the following example:

Cutti: oh, thumpi, 'dihm-Ti kha-u-*ro*
oh, thumpi, house-in come-imp-*rs*
Oh, Thumpi, (*you have been told*) come into the house.

Thumpi: 'khal-ce-*ro*
who-A-*rs*
Who *said so*?

Cutti: 'meme-ce
grandfather-A
Grandfather (said so).

In fables -*ro* occurs at the end of almost each sentence and is phonologically part of the sentence. Its function is relevant on discourse level where it shows the speaker's attitude as a disclaimer of responsibility. Note the following:

dahngpo 'kali juhk-ki 'samaai-ri nyamnya tengki bahsto
long ago few generation-of time-at bird and animal

'jhahkkra ta-pa-*ro*
quarrel become-pres-*ro*
'Long ago a bird and an animal had a quarrel, *so it is said*.'

Factive Particles. The factive particles, '*Tim*/'*rim* assert that what has been said is really true. The use of either '*Tim* or '*rim* is phonologically determined, that is, '*Tim* generally occurs after a closed syllable and '*rim* after an open syllable. Free variation has, however, been observed. These particles occur in conversation as in the following example:

Ques: 'cu Tup wai
this thread qm
(Is) this thread?

Answ: 'ruwa Tup '*Tim*
cotton thread *fact*
(It is) cotton thread, *certainly*.

'*Tim*/'*rim* occur in narriative text as in the following example:

'bhatau-ki behlo-ri 'nam 'phusphus-le 'yu-ri-pa '*rim*
Bhatau-of time-in rain soft drizzle-advl come-hab-pres *fact*

'The rain usually falls in a soft drizzle in the month of Bhatau.'

It was decided to include the factive particle with the sentence level peripheral items because it adds semantic flavour to a sentence while not actually affecting the basic structure.

2. Nuclear Structures.

2.0 Overview.

Statement calculus of mathematical logic posits five sentential connectives which can occur between prime sentences to form composite sentences.[2] These are:

1. negative to positive, symbolized as $-A,A$ (read, not A,A)
2. conjunctive, $A \wedge B$ (read, A and/but B)
3. disjunctive, $A \vee B$ (read, A or B)
4. conditional, $A \rightarrow B$ (read, if A, then B)
5. bi-conditional, $A \leftrightarrow B$ (read, A if and only if B).

In systematizing the semantic structure of Tamang sentences we have used three of these as major divisions in the sentence tree (Figure 4). These are conjunction, disjunction, and conditional (cause-effect). Besides these we have added a Temporal node for those relationships whose primary emphasis is one of time. Negation has not proved fruitful as a major division, but does figure in as a contrastive feature lower down in the tree. Similarly unproductive, bi-conditional has not been discovered to be a stateable relationship in Tamang.

We have attempted to display in the figure both semantic and grammatical structure. The tree itself, including its terminal nodes, is composed of (as far as possible) purely semantic labels. Grammatical structure is displayed by the horizontal rows which intersect the terminal nodes of the tree. These rows are: Co-ordination (Base-Link-Base); Parataxis (Base-Base); and Subordination (Margin-Base). The significance of this type of display is that it allows us to see the relationship between semantic (deep) structure and grammatical (surface) structure.

Note the encoding patterns. Temporal and Cause-Effect tend to surface in Margin-Base type structures while Conjunction and Disjunction by and large surface as Base-Base type structures. Note also that the Co-ordinate (Base-Link-Base) row is almost unused indicating that sentence relationships are almost totally signalled by relators, affixes, or simple juxtaposition with lexical restrictions across the Bases.

Node Labels. The first label under Cause-Effect is Real. By this is meant that the result, outcome or consequence actually occurs, whereas in Contrafactual and Conditional either the consequent did not occur, or is only projected. Thought under Real indicates the obligatory pres-

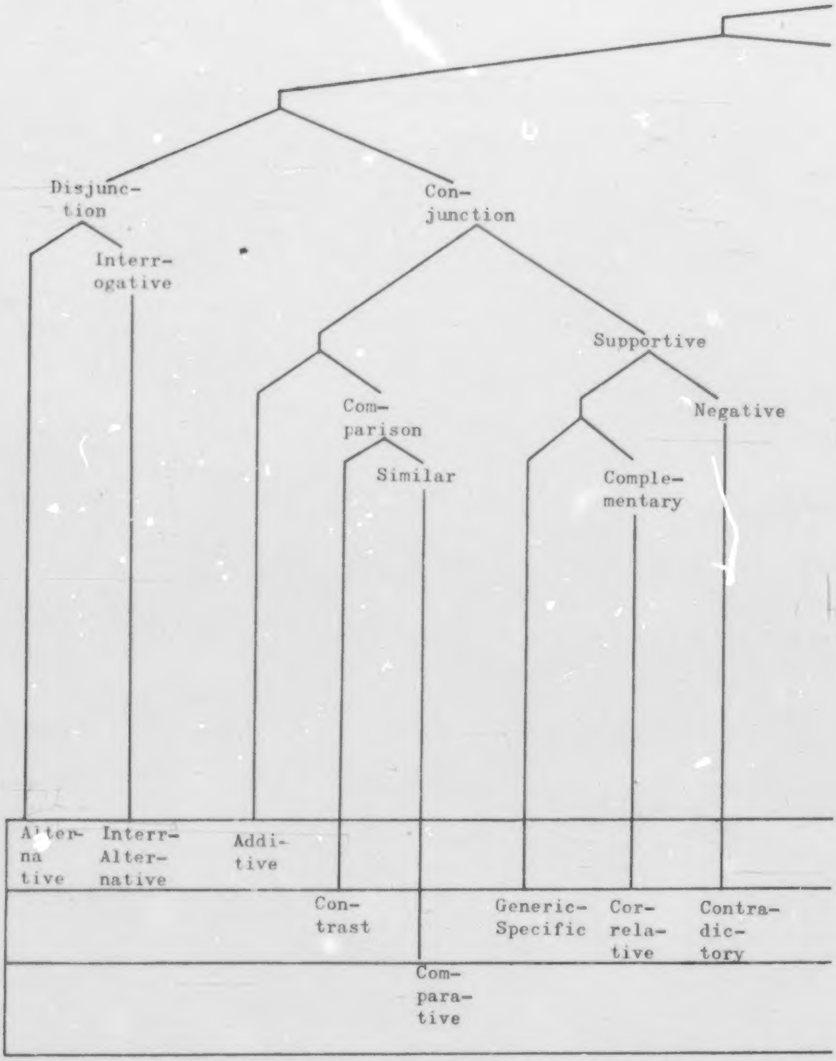
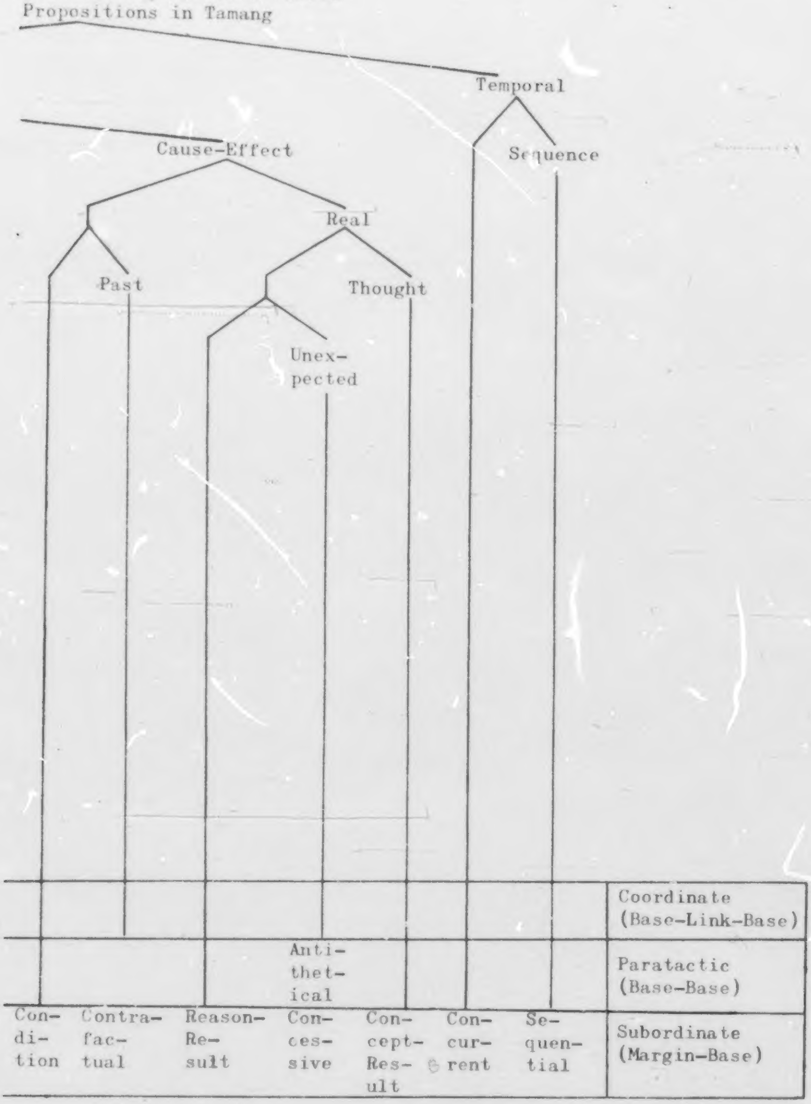


Figure 4. Semantic Structure Tree with Grammatical Encodings.

Relationships Between Paired Propositions in Tamang



ence of thought in the Concept-Result sentence. Unexpected, second labelled node under Real, signifies that in both Adversative and Concessive the result or outcome proposition is contrary to expectation. Past, the remaining node under Cause-Effect, in a temporal sense is one real contrastive feature which serves to differentiate between Contrafactual and Conditional. Supportive indicates that one proposition supports the other, either by supplying the positive proposition to a negative one as in the Contradictory Construction; by supplying a tagmeme of the other proposition such as manner, time, and location as in the Correlative Construction; or by listing various specifics of the more generic proposition as in the Generic-Specific Construction. Negative under-Supportive comes close to a grammatical label in that it signifies the obligatory presence of the formal ayihm 'is not' in the first proposition. The Complementary node means that one proposition completes the other by supplying a constituent tagmeme of it. Comparison signifies that the two propositions are being compared either as Similar or as Contrastive to each other. Interrogative means the presence of the interrogative mood in the sentence.

It should also be noted that a left branch need not necessarily indicate the absence of the right branching feature. It does mean that that particular feature indicated by the right branch is not a contrastive feature of the left branch.

2.1 The Sequential Construction.

+	MAR	AR Cl Dep Cl	±	MAR	AR Cl Dep Cl	n	+	BASE	Indep Cl
	Prior Prop			Prior Prop				Final Prop	

In the Sequential Construction, the actions of the propositions typically occur in specific chronological order. The order expressed in the marginal clauses, however, is not necessarily the only order in which the actions could have occurred. The only restriction seems to be that all of the propositions of the Margin tagmemes must occur before the proposition of the Base.

There are three sub-types of the Sequential Construction. Co-occurrence restrictions of these sub-types with each other and with other dependent clauses needs further investigation.

General Sequence. General Sequence is divided into two subsets on the basis of grammatical differences.

a) In this subset the predicate of the Margin is manifested by: verb stem + gerundive participle -cim 'having done'.

As many as five dependent -cim clauses have been found to occur in one construction before the independent base. The verb in the independent clause can take any tense suffix. See examples 1-3 and note that as in example 3 the order of the actions occurring before the independent clause can be changed.

b) In this subset the predicate of the Margin is manifested by: verb stem + gerundive participle, *-cim* 'having done' + the emphatic particle, *-ka* 'contrary to expectation'.

The marginal clause expresses the occurrence of an action which is contrary to listener expectation and the independent clause expresses the result.

In a construction containing several *-cim* clauses, *-ka* may occur suffixed to one only, usually the last in the series before the base clause. The 'contrary to expectation' meaning, however, covers all the dependent clauses in the construction. (See examples 4 and 5.)

Procedural Sequence. The axis of the Margin is manifested by a nominalized clause and the relator is manifested by the morpheme *-teng* 'after.'

When this form is used an unaccomplished event is being referred to. The verb in the independent clause typically takes the future or present tense suffixes, however, the past tense suffix *-ci* is sometimes used. As many as three dependent *-teng* clauses may occur in one construction, preceding the independent base. (See examples 6 and 7.)

Immediate Sequence. Immediate Sequence is also divided into two subsets on the basis of grammatical differences.

a) In this subset the predicate of the Margin is manifested by: verb stem + *-teng* 'after' + *a-* 'negative' + repeated verb stem + *-no*, emphatic particle 'as soon as/immediately'.

This type of dependent clause has been found to occur only once before the base clause in a given construction. (See examples 8 and 9.) However, it has been found to occur in combination with other dependent clauses in one construction. (See example 10.) When this Margin occurs, either by itself or in combination with other sequential margins, its meaning is 'immediate sequence to the action of the main verb'. The verb in the independent clause can take any tense suffix.

b) An alternate method of expressing 'as soon as/immediately' has probably been derived from Nepali. The axis of the Margin is manifested by a nominalized clause and the relator is manifested by *-i-saat-cem*.[3] For example:

nyi-pa-isaatcem
go-pres—as soon as
as soon as (he) went

which may be contracted to:

i) nyi-pi-saat-cem (the form most commonly used)
ii) nyi-pa-saat-cem
iii) nyi-pa-saat or nyi-pi-saat
iv) nyi-pa-cem

There appears to be no difference in the meaning of the above examples.

This type of dependent clause has been found to occur twice in one construction preceding the independent base. (See example 13.) There are no tense restrictions on the verb in the independent clause. For examples of this subset see numbers 11-13.

Examples:

1) (M)nyesiri-m 'nyiih-no paalo-'le yokta la-cim (B)ca-pa
evening-emp we-emp by turn-advl (cook food)-having eat-pres
'At evening, we, by turn having cooked the food, ate.'

2) (M)tit-ting bahrsa oh-le 'ki khar-cim (M)'jahmma-no
one-time year like that-advl water dry-having all-emp

nyamnya-'maah 'ki phii-cim (M)'jahmma nyamnya-no namting
bird-pl water thirst-having all bird-emp sky

'pyang-cim (B)'thau 'thau-ri 'khana 'lungpa-no 'glaah 'glaah-
fly-having place place-in everywhere-emp place place-

ri 'ki 'mai-pa-ro
to water search-pres-rs
'One year, the water having dried in that manner, the birds having thirsted for water, all the birds having flown in the sky, (they) searched everywhere for water.'

3) (M)ken ca-cim (M)'tangku 'thung-cim (M)tor mor baaht
rice eat-having tobacco drink-having up down conversation

la-cim (M)khimce kor-cim (B)'nau baace kyor-ki
do-having neighbour walk-having nine o'clock toward-of

'Tem-Ti 'nyiih-no 'nuu-pa
time-at we-emp sleep-pres
'Having eaten rice, having smoked, having talked, having visited a neighbour, about nine o'clock we went to bed.'

4) (M)nga-ce ciThi bah-cim-ka (B)'ee 'khet-'myang-ci
I-A letter bring-having-emp[3] you read-find-pt
'Having brought (you) a letter (which you didn't expect), you can read it.'

5) (M)nga-ce 'swetar 'gluh-cim (M)bah-cim-ka (b)'ee wen-'myang-ci
I-A sweater buy-having bring-having-emp you wear-find-pt
'Having brought (you) a sweater (which you didn't expect), you can now wear it.'

6) (M)'nyang-'maah bahn-Ti nyi-pa-teng (B)chi ping-eeno
we-pl forest-in go-pres-after grass green-also

ca-'myang-pa
eat-find-pres.
'After we go to the forest we find green grass for fodder.'

7) (M)'lama 'kim-bah-pa-teng (M)Dohmpo bah-pa-teng (M)'Tasyi
lama (bring)-pres-after guests bring-pres-after lama's

sehng-pa-teng (B)'syita 'bihta la-pa
work do-pres-after (leisure time) do-pres
'After the lama has been brought, after the guests have been brought, after the lama's work (ritual) has been done, there is leisure time.'

8) (M)'apis-ce syol-teng 'a-syol-no (B)chyong-kha-pala
office-from leave-(as soon as) run-come-pt
'As soon as I left the office, I came quickly.'

9) (M)nga-ce tam 'pang-teng 'a-'pang-no (B)the-ce 'pang-ci
I-A word say-(as soon as) he-A say-pt
'As soon as I spoke, he spoke.'

10) (M)yee, nga-eeno iskul-ce 'kheema syol-la ken kheema ca-
yes, I-also school-from when leave-fut rice when eat-

'myang-la mehn-na la-cim (M)syol-teng a-syol-no
find-fut think-advbl do-having leave-(as soon as)

(M)chyong la-cim (B)Deera-ri kha-pala
run do-having room-in come-pt
'Yes, I also, having thought "when will I leave school?", "when will I be able to eat rice?", as soon as (I) left school, (I) having run, came to my room.'

11) (M)ohte sung-pa-saatcem (B)thenyii-'maah gyoohne-no
like that say-pres-as soon as they-pl quickly-emp

nyi-ci
go-pt
'As soon as he spoke like that, they went quickly.'

12) asyim (M)anna 'pura 'mim-pa-saatcem-mi (M)nang-pa-
then grain completely ripe-pres-as soon as-but reap-er-

'maah nyi-cim (B)wahre-ce breeh-pa
pl go-having sickle-by cut-pres
'But then as soon as the grain ripens, the reapers go and cut it).'

13) (M)'nammapa-ce ca-pa-cem (M)mun 'Deht 'Deht ta-pa-cem
villagers-A eat-pres-as soon as night half become-pres-

(B)'jahmma-no syi-pala 'Tim
as soon as all-emp die-pt fact
'As soon as the villagers had eaten, as soon as it was about midnight, they all died.'

2.2 The Concurrent Construction.

$$+\left[\begin{array}{l|l} \text{MARGIN} & \text{AR Clause} \\ \hline \text{Initial Prop} & \end{array}\right]^{2} \qquad + \begin{array}{l|l} \text{BASE} & \text{Indep Clause} \\ \hline \text{Concurrent Prop} & \end{array}$$

The Concurrent Construction consists of a Margin expounded by a dependent axis-relator clause and a Base, expounded by an independent clause. The superscript 2 occurring after the Margin indicates that with the General sub-type two Margins may bracket the Base tagmeme. In the one instance where this occurs in text material, the second marginal clause is a repetition of the first marginal clause and gives additional information. It appears to be added for emphasis. (See example 5.)

There are three sub-types of the Concurrent Construction. These differ from each other grammatically by the choice of relator for the marginal clause, and semantically by the nature of the temporal focus.

Semantically, the relationship between the propositions expresses the inclusion of a second event within the time span of the first event.

The sub-types which expound the Margin are:

General. In the General Concurrent Construction, the predicate of the Margin is expounded by:

a) verb stem + -ma 'when/while'
b) verb stem + -mam 'when/while'

In a) the speaker indicates that he wishes to focus attention on the time of the action expressed by the verb stem, as in examples 1 and 2. Whereas in b) the speaker wishes to focus attention mainly on the action itself, rather than the time of performance. (See examples 3 and 4.)

Both a) and b) refer to past action and therefore the verb in the independent clause can only take a past or present tense suffix. The marginal clause can permute to post-base position.

Co-terminal. The Margin of this sub-type is expounded by:
verb stem + -na samma 'up to the time of'.

In this construction the focus is on time--the action of the independent clause being performed within the time limit set by, and tending to run co-terminal with, the action of the marginal clause. There are no tense restrictions on the verb in the independent clause. The Margin can permute to post-base position. (See examples 6 and 7).

Circumstance. The Margin of this sub-type is expounded by:
verb stem + -pa nominalizer + -ri 'time and reason'.

The Concurrent -ri clause has a cause or circumstantial flavour which can be translated 'because' or 'since'. The action expressed in the independent clause is the result of that expressed in the marginal clause and also occurs at the time of the first action. Only present or past tense suffixes can occur in the independent clause. The Marginal clause can permute to post-Base position. (See examples 8 and 9.)

Examples:

1) (M)'tirisuli-ri 'cha 'klaas-Ti 'khep-ma (B)'ee-ce mu-pa-wa
trisuli-at six class-in study-when you-A is-pres-or

'are, 'uhcu 'baamen 'Thita 'giih
not that Brahmin young boy one
'When you studies in class six in Trisuli (school), did you know one Brahmin boy or not?'

2) (M)'ee-ta 'naksaal-ki 'iskul-Ti 'khep-ma (B)'katha-'maah lop-
you-to Naksaal-of school-in study-when story-pl learn-

pala-wa a-lop-pala
pt-or neg-learn-pt
'When you studied in school in Naksaal, were you taught stories or not?'

3) (M)nahmsyo rahng syooh-ri apa kha-mam (B)apa-ta 'tinyi
tomorrow time morning-at father come-when father-to to-day

muhna cen kha-ci 'pang-pala
night leopard come-pt say-pt
'The next morning when father came, I said to him, "A leopard came last night."'

4) (M)mun-'Deht-Ti cyaa-nyi-mam (B)gahnti 'nuu-pa-rim
night-half-at look-go-when river rest-pres-fact
'When I went to look about midnight, the river was quiet.'

5) (M)'ee-ce 'curi 'yu-ma (B)'jahmma 'kharca 'gahte ta-nem
You-A here come-when all cost how much become-pt

(M)'curi Yampu-ri 'khet-'yu-ma
here Kathmandu-to study-come-when
'When you came here, what was the amount of money needed, when (you) came here to Kathmandu to study?'

6) (M)'kola-'maah klang-na 'samma (B)nga 'curi 'Ti-pa
child-pl play-(up to time of) I here stay-pres
'While the children play, I will stay here.'

7) (M)asu 'aspatal-Ti syuh-na 'samma (B)nga rooh-teng 'Ti-pa
Asu hospital-in stay-up to time of I friend-with stay-pres
'While Asu is in hospital I will stay with a friend.'

8) (M)ohte 'samma nyi-pa-ri-nq (B)kang 'na-pa rim
that much up to go-pres-when-emp foot ache-pres fact
'When I walk about so much my feet ache.'

9) (M)nga yampu-ri 'yu-pa-ri (B)'Tin 'gluh-sye
I Kathmandu-in come-pres-while tin buy-def fut
'Now that I have come to Kathmandu, (I) will buy tin.'

2.3 The Concept-Result Construction.

+	MARGIN	AR Clause	+	BASE	Indep Clause
	Concept Prop			Result Prop	

The Concept-Result construction consists of a Margin expounded by an axis-relator clause and a Base expounded by an independent clause. The clause in the Base tagmeme refers to a past event so the verb can take the past tense suffixes only. The one exception to this found so far is with the negative form of the verb mu-pa 'is' which expresses a present projected into the future. (See example 3.) Only one Margin has been observed to occur in the one construction preceding the Base tagmeme. The Margin and Base tagmemes do not permute.

Semantically, the two propositions are in a pseudo cause-effect relationship. The Concept proposition expresses what the actor thinks about a certain situation and the Result proposition expresses what actually occurs. It is pseudo cause-effect because the Result may or may not be the logical outcome of the Concept. This can be seen in Example 3 where the opposite of the thought expressed in the Concept occurs in the Result. The participants of both clauses must be the same. The Concept proposition can have two meanings depending on the form of the predicate.

a) anticipation (examples 1-3)
verb stem + -la 'indef fut' + -bih 'to think or say in mind'.

b) intention (example 4)
verb stem + -ke/-i + -bih 'to intend'.

Examples:

1) (M)karca tou-la-bih (B)'baih-pala
amt of money need-indef fut-say bring-pt
'I brought the amount of money (I) thought we would need.'

2) (M)apa yampu 'yu-la-bih (B)nga-ce 'tha-'yu-bih
father Kathmandu come-indef fut-say I-A neg-come-say

'chiTi brih-pala
letter write-pt
'Father said he (thought he) would come to Kathmandu (but) I wrote a letter telling him not to come.'

3) (ohntor dooh-ci 'pang-sam, ohntor dooh-pa-teng) (M)'khren-
up there arrive-pt if up there arrive-pres-after hungry-

la-bih (B)duhkkha 'are, kon
indef-fut-say trouble is not Kon
'(If we arrive up there, after we arrive up there) I think we will be hungry, (but) there won't be difficulty (obtaining food).'

4) (M)nga sawang-Ti nyi-i-bih (B)kha-pala
I sawang-to go-intend come-pt
'Intending to go to Sawang, I came.'

2.4 The Reason-Result Construction.

$$+\left[\begin{array}{l|l} \underline{\text{MARGIN}} & \underline{\text{AR Clause}} \\ \text{Reason} & \\ \text{Prop} & \end{array}\right]^{2} \quad + \quad \begin{array}{l|l} \underline{\text{BASE}} & \underline{\text{Independent Clause}} \\ \text{Result} & \\ \text{Prop} & \end{array}$$

The Reason-Result Construction consists of a Margin expounded by an axis-relator clause which is grammatically dependent upon and semantically bound to the independent clause occurring in the Base. The superscript 2 occurring after the Margin indicates that up to two Margins may precede the Base. These Margins are in a coordinate relationship to each other. (See example 4.) Permutation of Margin and Base is not permitted. There are no tense restrictions on the verb of the independent clause. The predicate of the Margin is expounded by:

verb stem + -pa 'nominalizer' + -i 'gyahmce 'because'

Semantically the state or action expressed in the marginal proposition gives the cause or reason of which the Base proposition expresses the result.

Sometimes the actual cause is given in the preceding sentence or paragraph. If this is so, the verb phrase in the marginal clause is an anaphoric reference to the actual cause. (See example 3.)

Examples:

1) (M)'ee-ce 'curi 'yu-ri-pi 'gyahmce (B)yampu-m 'jahmma-no
you-A here come-hab-pres-because Kathmandu-emp all-emp

'thaa yang-pala
knowledge find-pt
'Because you have come here many times you have learned much about Kathmandu.'

2) (M)candra bahadur 'antorong men 'myap-pa-i 'gyahmce
Chandra Bahadur (another place) medicine mix-pres-because

(B)'jahmma-no tam nyen-ri-pala mu-pala
all-emp word hear-cont-pt is-pt
'Because Chandra Bahadur mixes medicine in another place (other than this place), he hears all that is said.'

3) ('uhcu dihn-Ti duhniiyaa-ce 'kaam sehng-pa 'a-ta-pa sa
(that day-on people-A work do-pres neg-become-pres soil

wha-pa 'a-ta-pa sa wha-ci 'pang-sam 'naak-ki goh-ri
dig-pres neg-become-pres soil dig-pt say-cond snake-of back-on

tam-pa) (M)oh-ta-pa i 'gyahmce (B)'naak-ki
strike-pres) like that-become-pres because snake-of

goh-ri tam-pa-teng 'paap kha-pa
back-on strike-pres-after sin come-pres
(On that day, (the day of Naakpancaami) the people are forbidden to do work; (they are) forbidden to dig the soil. If the soil is dug, the snake will be struck on the back.) Because it is like that, after the snake's back is struck sin comes.'

4) (M)'kharca-eno 'yoo-pa ta-pi 'gyahmce
amt of money-also sufficient-pres become-pres- because

(M)'jahmma	seeh	mu-pi	'gyahmce	(B)nyii	tamang-ki-la
all	things	is-pres-because		we	Tamang-of-of

grahl	sehng-pala
mourning feast	do-pt

'Because the money also was enough, becuase (we) had all the things (needed), we performed the mourning feast of the Tamangs.'

There are other ways of indicating this cause-effect relationship in Tamang which are not illustrated in this sentence type. The verb phrase 'taale 'pang-sam is an idiomatic way of expressing 'because'. This is used mainly in conversation and is a sentence introducer. 'pang-cim 'therefore/for that reason' is also a sentence introducer which can sum up a preceding sentence or whole paragraph. These are inter-sentence devices whereas the relator -i 'gyahmce is an intra-sentence device.

2.5 The Conditional Construction

$$+\left[\begin{array}{l:l}\text{MARGIN} & \text{AR Clause}\\ \hdashline \text{Cond} & \\ \text{Prop} & \end{array}\right]^{2} \qquad + \begin{array}{l:l}\text{BASE} & \text{Indep Clause}\\ & \text{Dep Clause}\\ \hdashline \text{Conseq} & \\ \text{Prop} & \end{array}$$

The Conditional Construction consists of a Margin expounded by a dependent axis-relator clause and a Base expounded by an independent or dependent clause. The Base clause indicates the consequence or expected consequence of the condition expressed by the axis-relator clause. The superscript 2 occurring after the Margin indicates that this tagmeme may occur twice before the Base tagmeme. The past tense suffixes cannot occur in the Base clause. There are two sub-types of the Conditional Construction, based on semantic and grammatical criteria.

Indefinite Condition. In this sub-type there seems to be an equal probability in the speaker's mind of the fulfillment of the condition as not. The predicate of the Margin is expounded by:

verb stem + -ci 'past tense' + 'pang-sam 'conditional'.

This form also occurs simply as: verb stem + -sam 'conditional.' There is a definite preference for present tense in the predicate of the clause filling the Base. (See examples 1 and 2.)

Probable Consequence. In the Probable Consequence sub-type the fulfillment of the consequence, in the mind of the speaker, is almost sure to eventuate if the stated conditions are met. This is signalled by the obligatory occurrence of the perfect aspect -sye-la on the predicate of the Base clause which we have chosen to translate with a future 'will.' The predicate of the Margin is the same as in the Indefinite

Condition subtype. (See examples 3-5.)

Two Conditional clauses may occur in a co-ordinate relationship. preceding the Base Clause. (See examples 6 and 7.) The proposition in the Base expresses the final result looked for, but the second condition may be said to encode the result of the first condition.

Two conditional clauses may also occur in the one construction in an antithetical relationship. (See example 8.)

Examples:

1) (M)'pheeri kha-sam (B)nga 'bantuk-ce 'pung-pa
again come-cond I gun-with fire-pres
'If (the leopard) comes again, I will fire a gun.'

2) japa (M)bahsto Daah-pa 'maih-ci 'pang-sam (B)bahsto teng
when animal win-pres search-pt cond animal with

'chip-pa-ro
sit-pres-rs
'If the animal wins (I'll) sit with the animal.'

3) (M)'ee-ce nga-ta 'ciThi 'arko-eeno 'pik-kha-sam (B)nga-la sem
you-A I-to letter other-also send-come-cond I-of mind

yahko tang-sye-la
very happy-will
'If you send me another letter also, I will be very happy.'

4) (M)ganga-ki 'mii jyahpa ta-pin-sam (B)jyahpa ta-sye-la
ganga-of eye good become-give-cond good become-will
'If (the doctor) is able to heal Ganga's eye, (everything) will be all right.'

5) (M)('cu 'kaam) syee-sam (B)nyi-ce rangrang-ce-no sehng-sye-la
this work know-cond we-A our own-A-emp do-will
'If (we) know about (this work), we will do it ourselves.'

6) (M)'ki mu-ci 'pang-sam (M)'ti-khyap 'nyiih-khyap 'ki lai-ti-ci
water is-pt cond (one time) (two times) water irrigate-

'pang-sam (B)'mim-pa
NL-pt cond ripe-pres
'If there is water, if (you) irrigate once or twice, (the wheat) will ripen.'

7) (M)'ee-ce 'kitaap 'apis-Ti bohr-sam bobikhan 'namsa-ri bohr-
you-A book office-to take-cond Bobikhan village-to take-

'myang-sam (B)tang-pa
find-cond happy-pres
'If you take the book to the office, if Bobikhan finds he (can) take it to the village, (he) will be happy.'

8) (M)'ki 'are-sam (M)'nam 'yu-ci 'pang-sam (B)'mim-pa
water not-cond rain come-pt cond ripe-pres
'If there isn't any water, (but) if it rains, (the wheat) will ripen.'

2. The Contrafactual Construction.

+	BASE	Dep Clause
	Cond Prop	past tense, *-pala*

+	BASE	Dep Clause
	Conseq Prop	perfect aspect

The Contrafactual Construction consists of two mutually dependent Bases. Base 1 is expounded by a dependent axis-relator clause and Base 2 is expounded by a dependent clause. The verb in the Base 1 clause typically takes the past tense suffix *-pala*. The only exception to this is the verb *yihm-pa* 'being', which indicates a state of being or existence. (See example 3.) The verb in the Base 2 clause must take the perfect aspect suffix *-sye-la*, the translation of which is influenced by the tense of the verb in the Base 1 clause.

The semantic relationship between the propositions is that of unfulfilled condition to unfulfilled consequence. This is accomplished by the combination of the conditional relator *'pang-sam* 'if' and the past tense suffix *-pala* in Base 1, plus the perfect aspect in Base 2.

In the material studied so far, only one conditional proposition per sentence has been found to occur in this construction.

Examples:

1) (M)'ee 'kitaap 'khep-pala 'pang-sam (B)'syee-sye-la
you book read-pt cond know-would have
'If you had read the book, you would have known.'

2) (M)'cu-i 'paalo 'a-nyi-pala 'pang-sam (B)'dehresye 'magh-ri
this-of time neg-go-pt cond later magh-in

nyi-'a-thoo-sye-la
go-neg-comp-would have
'If I hadn't gone (to the hospital) this time, (I) would not have to go again later in Magh.'

3) (M)the 'bohksyi 'a-yihn-sam (B)gahnti 'nuu-pa 'thaa 'a-yang-
she witch neg-is-cond river rest-pres knowledge neg-find-

sye-la
would have
'If she is not a witch, she would not have known (that) the river was quiet.'

2.7 The Generic-Specific Construction.

$$+\begin{array}{l:l}\text{BASE 1} & \text{Indep Cl}\\ \hdashline \text{General} & \text{non-}\\ \text{Proposition} & \text{detailed}\end{array}\quad+\left[\begin{array}{l:l}\text{BASE 2} & \text{Indep Cl}\\ \hdashline \text{Specific} & \text{detailed}\\ \text{Proposition} & \end{array}\right]^{n}$$

The Generic-Specific Construction is composed of two or more Bases expounded by independent clauses, occurring in a paratactic relationship, linked by utterance non-final intonation patterns.

Base 1 is expounded by an independent clause stating a general proposition. In the following Base the specific proposition is given. At the juncture of these two Bases there is level, run-on intonation. These Bases are permutable so that the generic Base may occur last. The superscript n following Base 2 indicates that more than one Base containing a specific proposition may occur. The intonation pattern at the juncture of subsequent clauses is non-final rising intonation with ~~vowel~~ length (listing intonation). (See examples 1 to 3.) When identical predicates occur in listing some undergo deletion as in example 3. The deleted predicate is supplied in parentheses. All identical predicates, with the exception of the final one, may be deleted.

Semantically the propositions are related to each other as generic to specific within a single topic or meaning domain.

Examples:

1) (B)lop-pa-'rim (B)'saamaskriti-eeno jyahp-le-no lop-pa
teach-pres-fact Sanskrit-also good-advl-emp teach-pres

(B)'maane-'maah-eeno phlem-pim-pa
meaning-pl-also understanding-give-pres
'(He) certainly teaches—Sanskrit also (he) teaches well, (he) gives understanding of the meanings also.'

2) (B)Dahkarmi-'maah-ce 'gaahro 'rii-pa (B)koi-ce 'hilo 'jyohp-
wall maker-pl-A wall build-pres some-A mud mix-comp-

thoo-pa (B)'tet-thoo-pa (B)ril-thoo-pa (B)dohn-thoo-
pres take out-comp-pres roll-comp-pres throw-comp-

pa
pres
'The wall-makers build the wall—some mix mud, take it out,

make it into balls, throw from man to man.'

3)

(B)ihsaap-eeno	jyah-pa-no	mu-pa	(B)samaskriti-eeno
arithmetic-also	good-pres-emp	is-pres	Sanskrit-also

jyah-pa-no	mu-pa	(B)nepaali	itihaas-'maah-eeno	jyah-pa-
good-pres-emp	is-pres	Nepali	history-pl-also	good-pres-

no	mu-pa	(B)jahmma-no	jyah-pa-no	mu-pa
emp	is-pres	all-emp	good-pres-emp	is-pres

'Arithmetic also is good, Sanskrit also is good, Nepali history also (is good)—all things are good.'

4)

(B)'mane	'kulpa-i	dohnta	'giih-ke	mu-paa	(B)ngoo
ritual	prayer-of	custom	one-only	is-pres	lama's prayer

sehng-pa-i	phoo	sehng-pa-i	dohnta	'are
do-pres-of	lama's prayer	do-pres-of	custom	not

'(The Brahmins) have only one special prayer for the dead; (they) don't have the custom of the lama's prayers (as we Tamangs do).'

5)

(B)'meme	ruhp-pa	(B)parla	ruhp-pa
grandfather	gathers-pres	dishes	gather-pres

'Grandfather gathers, (he) gathers the dishes.'

2.8 The Additive Construction.

```
     BASE 1 ¦ Indep           LINK ¦ Cj and/or ¦ Inton Pat 1 ± 'syihm
            ¦ Cl                   ¦ Inton Pat ¦ Inton Pat 2*
+   -------+------      + +-------+-----------+------------------------
     Init   ¦                 Conn ¦           ¦ 'incomplete utterance ± and'
     Prop   ¦

     BASE 2 ¦ Indep       ┌                                                   ┐ n
            ¦ Cl          │   LINK ¦ Cj ¦ Inton Pat 1          BASE ¦ Indep   │
+   -------+------     ± │ +      ¦    ¦ ± 'syihm                   ¦ Cl      │
     Add    ¦             │  -----+----+----------      +  -----+------     │
     Prop   ¦             │   Conn ¦    ¦                    Add  ¦           │
                          │                                  Prop ¦           │
                          └                                                   ┘
```

*If more than two Bases occur, Intonation Pattern 1, ± 'syihm 'and' must link these Bases. Intonation Pattern 2 has only been observed to link two Bases in this construction.

Two or more Bases of equal grammatical status may be combined to form one sentence. This can be done either by parataxis or by use of the conjunction 'syihm, 'and'. The Bases are permutable unless there is chronological sequence involved. Both constructions require special intonation features. When the conjunction is omitted the Intonation Pattern itself carries the full load of linking the Bases. Unless a second subject is introduced, the same subject is shared by both propositions. The tense of both propositions need not be the same. The superscript *n* following the section of the above formula enclosed in brackets indicates that this may occur several times.

Semantically the Bases are joined together in an additive relationship. For this to be possible, there must be a close semantic relationship or tie between them.

Intonation Pattern 1 /—╯/. There is lengthening of the vowel on the tense suffix of the verb at the juncture of two clauses plus rising intonation. The conjunction '*syihm* 'and' occurs optionally with this intonation pattern. When the conjunction is omitted it may indicate an attitude of anger on the part of the speaker (see examples 4 and 5), or may occur when listing incidents (see examples 6 and 7).

Intonation Pattern 2 /——/. There is level, 'run-on' intonation at the juncture of the two clauses. The conjunction '*syihm*, 'and' does not occur with this Intonation Pattern, but there is close semantic relationship between the two propositions (see examples 8 - 10).

Examples:

1) (B)'dehrem syee-paa (L)╯'syihm (B)'dehresye 'byohng-'yu-pa
now go-pres and later hon-come pres
'Go now and please come later.'

2) (B)'tinamsyo nga-la 'swasta 'Thik mu-paa (L)╯'syihm (B)'cu
these days I-of health alright is-pres and this

tam nyen-'myang-mam nga-ta yahko-no tang-ci
word hear-find-when I-to much-emp happy-pt
'These days my health is alright and I will be very happy when I hear this news (about you).'

3) (B)'ee-i apa ama-ta nga-la namaste sung-jeht-oo (L)╯'syihm
you-of father mother-to I-of namaste say-hon-imp and

(B)'ee-i roh-'maah-ta-eeno namaste sung-jeht-o
you-of friend-pl-to-also namaste say=hon-imp
'Please say "namaste" to your mother and father for me and say "namaste" to your friends also.'

4) (B)namsyo nga bohr-paa (L)╯ (B)nyi-pa
tomorrow I take-pres go-pres
'Tomorrow I'll take (it and) go!'

5) (B)nga ca-paa, (L)╯ (B)nyi-pa
I eat-pres go-pres
'I'll eat (and) go!'

6) (B)'uhcu ranta 'yu-i ale-i mring 'uhcu kraa-pa-roo (L)—/
that ranta yu-of yng bro-of wife she cry-pres-rs

(B)'kola-'maah-eeno 'rup-pa-roo gaahri-ce
child-pl-also vomit-pres-rs car-by
'The wife of Ranta Yu's younger brother, she cried (it is said);
the children were sick also because of the bus (it is said).'

7) (B)the-ce 'pang-cii (L)—/(B)brih-cii (L)—/(B)'jahmma-la-no
she-A say-pt write-pt all student-of-emp

'kaapi 'jaanc-ti-cii (L)—/(B)'ispiling galTi gahte 'kora
book examine-NL-pt spelling error how many

'ispiling galTi ta-ci
spelling error be-pt
'She (the teacher) talks, writes (on the blackboard), examines all the student's books, (marks) how many spelling errors there are.'

8) (B)phyukpa-eeno syi-pa (L)——(B)gahrip-eeno syi-pa
rich-also die-pres poor-also die-pres
'The rich (people) also die, the poor (people) also die.'

9) (B)maah buhring-eeno kha-thoo-pa (L)——(B)kaTapa-eeno
bro in law clan bro-also come-comp-pres eld & yng bro-

kha-thoo-pa
also come-comp-pres
'The brother-in-law also must come, the elder and younger brothers also must come.'

10) (B)'meh-'maah-ce "phu phu-le" na rap-ti-pa 'rim (L)——
cow-pl-A "phu phu-advl nose snort-cont-pres fact

(B)kra 'lihp-ti-pa 'rim
head shake-cont-pres fact
'The cows continued to snort, continued to shake their heads.'

2.9 The Contrastive Construction.

	BASE 1	Dep Cl	-*caanyi* -*mi*		BASE 2	Dep Cl	-*caanyi* -*mi*
+	Contr Prop		contrast	+	Contr Prop		contrast

The Contrastive Construction consists of two Bases manifested by mutually dependent clauses. The mutual dependency of these two clauses is governed by the occurrence of either of the contrastive emphatic particles -*caanyi* or -*mi*. The emphatic particles occur suffixed to the persons or items being contrasted within the sentence. The Bases are permutable.

The semantic relationship between the propositions is one of contrast. Note that two factors in each proposition required to form the contrast—the marked item plus some other constituent of the clause or aspect of the verb. Note also that the marked contrasted items play the same role in each proposition—Actor with Actor and Undergoer with Undergoer.

Example	Proposition 1		Proposition 2	
	Item 1	Item 2	Item 1	Item 2
1	he	downstairs	I	upstairs
2	I	caught	he	did not catch
3	rope	put	basket	did not put
4	I	gave book	you	gave sickle

Figure 5. Item Contrast Chart.

Examples:

1) (B)the-caanyi 'duhngTi 'nuu-pa (B)nga-caanyi pherang khyang-Ti
he-emp below rest-pres I-emp above cot-on

khyang joh-ri 'nuu-pa
cot top-on rest-pres
'He lay down to rest downstairs, I rested on top of my cot upstairs.'

2) (B)nga-ta-mi 'serngo 'khoo-nem (B)the-ta-mi 'a-'khoo
I-to-emp cold move-pt he-to-emp neg-move
'I caught the cold, he didn't.'

3) (B)nga-ce 'choo-caanyi 'dihm-Ti then-ci (B)bahr-caanyi 'a-then
I-A rope-emp house-in put-pt basket-emp neg-put
'I put the rope, not the basket, in the house.'

4) (B)nga-ci-mi apa-ta 'kitaap pin-ci (B)'ee-ce-mi wahre pin-ci
I-A-emp father-to book give-pt you-A-emp sickle give-pt
'I gave father a book, you gave him a sickle.'

2.10 The Correlative Construction.

	BASE 1	Dep Clause		BASE 2	Dep Clause
+	Iden Proposition	+ rel	+	Co-rel Proposition	+ rel

The Correlative Construction consists of two mutually dependent Bases, occurring in a paratactic relationship, with rising intonation at the juncture of the two clauses. Semantically, the relationship existing between the clauses is that of complementation, the first proposition completing the meaning of the second by further defining one of its constituents.

The verb occurring in the Base 1 clause can only take the past tense suffix, -ci, but the verb in the Base 2 clause may take any tense suffix. Although a relative pronoun may occur only in the Base 1 clause (see examples 1 and 2), usually there will also be a relative pronoun in the Base 2 clause. The relative pronouns occurring as pairs across the Bases are as follows:

	Base 1		Base 2	
1.	+ 'kheema	'whenever'	± chteema	'then'
2.	+ 'khana	'wherever'	± 'uhcu-ri	'that place-at'
3.	+ 'khala	'whoever'	+ 'uhcu	'that' (person or object)
4.	+ 'khacu	'whichever/ whoever'	+ 'uhcu	'that'
5.	+ 'taa	'what'	+ 'uhcu	'that'
6.	+ 'khale	'however'	+ ohte	'in that manner'
7.	+ 'khatepa	'what kind'	± ohtepa-no	'that kind-emp'

Because of this cross-referencing pattern Bases cannot permute. The numbering of the above corresponds to the numbering of the examples.

Note that in examples 1 and 2 the relative pronoun in the Base 2 clause is optional but the inclusive particle, -eeno 'also' occurs obligatorily suffixed to the personal pronoun forming the cross-referent link with the Base 1 clause.

Examples:

1) (B)nga 'kheema 'mrang-Ti nyi-ci (B)the-eeno nyi-pa
I whenever garden-to go-pt he-also go-pres
'Whenever I go to the garden, he goes too.'

2) (B)nga 'khana nyi-ci (B)the-eeno nyi-pa
I wherever go-pt he-also go-pres
'Wherever I go, he also goes.'

3) (B)'khala kha-ci (B)'uhcu miih-ta pin-o
whoever come-pt that man-to give-imp
'Give (the book) to whoever comes.'

4) (B)'khacu 'kitaap sem-Ti 'men-ci (B)'uhcu bohr-pa
whichever book mind-to like-pt that take-pres
'Take whichever book you like.'

5) (B)'ee-ce 'taa sung-ci (B)nga 'uhcu-no sehng-pa
you-A what say-pt I that-emp do-pres
'What you say I will do.'

6) (B)the-ce 'khale sehng-ci (B)nga-ce-eeno ohle-no
he-A however do-pt I-A-also in that manner-emp

sehng-pa
do-pres
'I'll do (the work) in the same manner he does it.'

7) (B)the-ce 'khatepa 'gluh-ci (B)nga-eeno ohtepa-no 'gluh-pa
he-A what kind buy-pt I-also that kind-emp buy-pres
'What kind he buys, that kind I will also buy.'

2.11 The Comparative Construction.

+	MARGIN	AR Cl	+	BASE	Indep Cl
	Iden Prop			Comp Prop	

Grammatically the Comparative Sentence is a subordinate construction consisting of a Margin filled by an axis-relator clause plus a Base filled by an independent clause. Semantically the relationship between the two propositions is one of comparison in which both similarity and difference are involved. Similarity is involved in that the two must have a common topic; difference in that an inequality is always implied.

It is similar to the Contrastive relationship in that two differences are required between the propositions. Note Figure 6. Note also that compared items play the same role in each proposition—Actor is compared with Actor, and Undergoer with Undergoer.

The relator of the clause of the Margin is bihna or 'bhanna 'than'. The latter form is probably borrowed from the Nepali bhandaa. The verb of the Base clause may take any tense form. Permutation of Margin and Base is not permitted.

Example	Proposition 1		Proposition 2	
	Item 1	Item 2	Item 1	Item 2
1	He	eats more	I	eat (less)
2	rice	eats more	corn	eats (less)
3	he	eats less	I	eat (more)
4	rests	more	works	(less)

Figure 6. Item Comparison Chart.

Examples:

1) (M)nga-ce 'pang-pa 'bhanna (B)the-ce yahko 'pang-pa
I-A say-pres than he-A very say-pres
'He talks much more than I talk.'

2) (M)'makai ca-pa bihna (B)the-ce ken ca-ci
corn eat-pres than he-A rice eat-pt
'He ate more rice than he ate corn.'

3) (M)nga-ce ken ca-pa bihna (B)the-ce 'cek 'kino ca-pa
I-A rice eat-pres than he-A small amt only eat-pres
'He eats less rice than I eat.'

4) (M)'kaam sehng-pa 'bhanna the-ce 'nuu-pa
work do-pres than he-A rest-pres
'He rests more than he works (because he is lazy).'

2.12 The Antithetical Construction.

+ BASE 1	Indep Clause	+ BASE 2	Indep Clause
Thesis Prop		Anti-prop	

Semantically the Antithetical Construction is a polarized construction in which proposition one arouses a certain expectation in hearer's mind based on either universally or culturally determined expectancy (cause-effect) patterns. The second proposition presents a consideration which runs counter to this expectancy. There are two sub-types based on semantic and grammatical considerations.

Contrary to Expectation. This sub-type is characterized by a specific situation or action being stated in the first proposition and a result or situation contrary to expectation being stated in the second proposition. The two propositions are optionally linked by the adversative particle -m/-mi 'but' which is affixed to the verb in the first proposition. The propositions may be positive-positive (see examples 1 and 2) or, positive-negative (see example 3). If chronological sequence is not involved the Bases can permute.

Mistaken Thought. Base 1 is manifested by the thought clause and Base 2 is manifested by the fact which is contrary to what was expected. The two Bases may be optionally linked by the Adversative particle -m/-mi 'but'. The emphatic particle -ka may be optionally suffixed to the subject or the predicate in Base 2 which further emphasizes the contrast between what was thought and the actual event or state. The Bases can permute unless there is chronological sequence involved.

Examples:

1) nga rhee-cim (B)kring-pala-mi (B)cen-ce nga-ta cyaa-pa
I got-up-having cry out-pt-but leopard-A I-to look-pres
'Having got up, I cried out but the leopard just looked at me.'

2) (B)'meh-mi 'yahm-ce 'yahm-no nga-la 'ket thee-pa-teng-mi (B)'jehn
cow-emp again and again I-of voice hear-pres-after-but all

bahng-ce phu phu-bih na rap-pa
the more strength-with phu phu-advl nose snort-pres
'(I spoke to the cows) After they head my voice, however, they snorted all the more loudly.'

3) (B)'pheeri nga-m 'kyongle 'nuu-ri-palaa (B)'gahte-eeno
again I-emp legs straight lie-down-cont-pt how much-also

mehr-pa 'a-'kham
sleep-pres neg-able
'Again I lay down, (but I) wasn't able to sleep.'

4) (B)'batta-ri 'sallai mu-pa 'pang-pala-mi (B)are-pala-ka 'Tim
box-in matches is-pres say-pt-but not-pt-emp fact
'(I) thought there were matches in the box, but there certainly aren't.'

2.13 The Concessive Construction.

	MARGIN	Coord AR Const AR clause		BASE	Indep Cl
+	Concessive Proposition	neg-pos	+	Outcome Proposition	pos-neg

The Concessive Construction consists of a Margin expounded by a dependent axis-relator clause, and a Base expounded by an independent clause.

In most examples there are no tense restrictions on the verb occurring in the independent clause. It is probable that the few exceptions are restricted for semantic reasons but this will need further investigation.

Concession is indicated by suffixing -*la*-*eeno* or *ma*-*eeno* 'although, even though', directly to the verb stem. While there is apparently no difference in meaning, -*la*-*eeno* occurs only with the declarative voice while -*ma*-*eeno* occurs with both the interrogative and declarative voices. Usually the vowel of the suffix assimilates to the initial vowel of -*eeno* to become -*le*-*eeno* and -*me*-*eeno*. The reason for the optional occurrence of -*la* or -*ma* in the declarative voice is not yet known.

There is rising intonation at the juncture of the two clauses, but vowel length has not been observed as in the Additive Construction.

Two Concessive clauses have been noted to occur in a Coordinate relationship to each other. As such they both apply to the following Base. Because they do not form an independent sentence, we have called the pair a coordinate axis-relator construction. (See example 5.)

Although grammatically and phonologically bound to the clause of the Margin, -le-eeno/-ma-eeno function semantically as a link indicating the Concessive-Outcome relationship between two propositions.

Semantically the relationship between the two propositions is one of contrast, in which the Outcome is always contrary to the expectancy evoked by the Concession. This is indicated in the formula by the neg-pos/pos-neg notation in Box 5. This may be signalled grammatically by a negative morpheme in either the Margin or the Base as in examples 1 and 2. Or it may be signalled only by the semantic situation. Example 3 is grammatically positive to positive, but the Outcome, '... he lay upstairs' is contrary to the speaker expectancy which would be 'He should lay downstairs as I do.' Similarly, although example 4 is grammatically negative to negative, the Concession, 'I didn't know' evokes the expectancy 'You should ask!', whereas the opposite of this occurs—'I didn't ask.'

Examples:

1) (M)nga-ce kring-le-eeno (B)cen-ce 'a-'yahr-pa
I-A cry-out-concess leopard-A neg-go-pres
'Although I cried out the leopard didn't go.'

2) (M)ngooh sehng-pa-i phoo sehng-pa-i dohnta 'are-
lama's prayer do-pres-of lama's prayer do-pres-of custom not-

le-eeno (B)'mane 'kulpa-i dohnta 'giih-ke mu-pa
concess ritual prayer-of custom one-only is-pres
'Even though they don't have the custom of the lama's prayers (they) have the custom of one ritual prayer (for the dead).'

3) (M)the-caanyi 'duhngTi 'nuu-le-eeno (B)nga-caanyi pherang khyang-Ti
he-emp below rest-concess I-emp above cot-on

'nuu-pa
rest-pres
'Although he lay down to rest below, I rested on my cot above.'

4) (M)nga 'a-'syee-le-eeno (B)the-ta 'a-nyot
I neg-know-concess she-to neg-ask
'Although I didn't know (I) didn't ask her.'

5) 'kola-'maah-ta 'ngot-cim (M)'chyo 'chyo-ri then-le-eeno (M)'cu
child-pl-to call-having around about-at place-concess this

nyen-'pung-thoo-le-eeno (B)nyii-la otepa-i 'kaam mu-pa
hear-caus-comp-concess we-of like this-of work is-pres
'Having called the children, although (we) place them around about us, although we have to cause them to hear this (story), this is our work.'

2.14 The Interrogative Alternative Construction.

	BASE 1	Indep Cl		LINK	Aff	-wai		BASE 2	Indep Cl
+	Alt Prop	interr	+	Alt Pivot			±	Alt Prop	interr

The most common way of expressing alternation is by using the interrogative morpheme, -wai 'or'. In this construction the clause containing the second alternative may be, and frequently is, deleted. -wai always indicates an alternative in the mind of the speaker. The alternative can be the negative of the first alternative or an alternative understood by the speaker and hearer or an alternative known only to the hearer which the speaker is trying to elicit. Because of this, the second Base can be deleted when -wai is used. It can be supplied in the three instances mentioned above as shown by the following English examples:

a) Negative of Base 1.
Shall I go alone or? (shall I not go alone?)

b) Known to Speaker and Hearer.
Shall I go by foot or? (shall I go by cycle?)

c) Known Only to Hearer.
Shall I first wash the dishes or? (what shall I do?)

Grammatically the two Bases, linked together by an overt conjunction, form a coordinate construction.

There is rising intonation on the interrogative morpheme -wai, and when the second Base is stated there is utterance final falling intonation.

Note that in example 4, the predicate in parentheses is deleted from the text but added here for clarity of meaning.

Examples:

1) (B)'dehre 'syap-ce syee-la-(L)wai (B)'saikal-ce syee-la
now foot-A go-fut-or cycle-A go-fut
'Will you go by foot or by cycle?'

```
2)  (B)ngonkyam nga parla  syal-pa-(L)wai (B)duhlu sehng-pa
       first    I   dishes clean-pres-or     sweep do-pres
       'Shall I wash the dishes first or sweep the floor?'

3)  (B)'ee-ce ken-eeno  thon-ci-(L)wai
       you-A  rice-also ready-pt-or
       'Did you have the rice ready also, or -? '

4)  ('samaskriti lop-pa     'rim 'khacu?)  (B)'baahmen 'maasTar
    (Sanskrit    teach-pres fact which?)      Brahmin  master

     (mu-pa) (L)wai (B)baih  mu-pa
      is-pres   or     Newar is-pres
     '(Who teaches Sanskrit?)  Is it a Brahmin master or a Newari
     master?'
```

2.15 The Alternative Construction.

General Alternative.

```
     BA[illegible] 1 ¦ Indep Cl      LINK  ¦ Cj ¦ naa...naa...        BASE 2 ¦ Indep
 + ———————¦————————  + ——————¦————¦———————————————— + ———————¦ Cl———
     Alt     ¦               Alt   ¦    ¦ 'either...or...'     Alt    ¦
     Prop    ¦               Pivot ¦    ¦                      Prop   ¦
```

Grammatically this is a coordinate construction in which two independent Bases are linked together by the discontinuous link naa...naa... 'either...or...'

Semantically the two propositions are in an exclusive disjunctive relationship to each other in which they are offered as choices to the listener—only one of which may be chosen. The alternation may be between positive and negative aspects of the same verb or between different exponents of an identical role in each proposition—location A over against location B (see example 1), time A over against time B (see example 2). When this latter type of alternation occurs, the link naa occurs before the constituent which is being offered as a choice.

There is rising intonation at the juncture of the two clauses and utterance final falling intonation at the end of the construction. The Bases can permute. Deletion of shared participants may occur in the second Base. In the analysis thus far only two Bases can occur as alternatives. The Link is obligatory. For examples of the General Alternative sub-type see numbers 1-3.

Dependent Alternative.

	BASE 1	Indep Cl		LINK	Cj	teng		BASE 2	Indep Cl
+	Alt Prop	pos	±	Alt Pivot		'or'	+	Alt Prop	neg

This sub-type has been labeled 'dependent' since it only occurs embedded as the complement of such verbs as 'know.' The alternation is always between positive and negative aspects of a shared predicate. The ordering of the two Bases is fixed with the positive always preceding the negative. The Link is optional. Only the present tense suffix -pa has been observed to occur on the verbs. Two Dependent Alternative Constructions can occur together in a coordinate or additive relationship to each other. See example 4 where both Alternative Constructions are complements to the verb 'know'. For further illustrations of this sub-type see examples 5 and 6.

Examples:

1) (L)naa (B)'asan-Ti yang-mu (L)naa (B)indira chok-Ti
either Ason-in available-is uncert or Indira Chowk-in

yang-mu
available-is uncert
'It is available either in Ason or in Indira Chowk.'

2) (B)nga 'aspatal-Ti (L)naa 'tinyi-ri nyi-mu (L)naa
I hospital-to either afternoon-in go-is uncert or

(B)nyesyi-ri nyi-mu
evening-at go-is uncert
'I will go to the hospital either in the afternoon or in the evening.'

3) (L)naa (B)yang-mu (L)naa (B)a-yang-mu
either available-is uncert or neg-available-is uncert
'(I'm) not certain whether its available or not.'

4) (B)ta-pa (L)teng (B)'a-ta-pa (B)kha-pa (L)teng (B)'a-kha-pa
be-pres or neg-be-pres come-pres or neg-come-

('thaa 'are kon)
pres (knowledge is not Kon)
'Whether (the hay) will become (stacked) or not become (stacked), whether (the rice) will come or not come, (we don't know, Kon).'

5) (B)ta-pa (L)teng (B)'a-ta-pa-m (rahng-ki ngoh)
become-pres or neg-become-pres-but (own-of fortune)
'Whether it will be or not, however, (is according to one's own fate).'

6) (B)ta-pa (B)'a-ta-pa ('taa yihn-ci? apa 'nyang-ce
become-pres neg-become-pres (what is-pt now we-A

'a-'syee)
neg-know)
'Whether it will be (or) not, (what will happen?—now we don't know).'

2.16 The Contradictory Construction.

	BASE 1	Indep Cl		BASE 2	Dep Cl
+	Iden Prop	negative	+	Contra Prop	positive

This is grammatically a paratactic construction consisting of an independent Base and a dependent Base. Base 2 is dependent because of the obligatory presence of the particle -ka 'on the contrary,' which does not allow the clause to occur alone.

Semantically this sentence might be characterized as -A, B (A is not true, B is true). As such, certain participants in each proposition are singled out and contrasted with each other--Actor with Actor, Undergoer with Undergoer and so forth.

Base 1 is negated by the obligatory occurrence of the attributive verb plus the negative prefix 'a-yihn 'isn't.' Base 2 contains the emphatic particles -ka-syihm—-ka expressing 'on the contrary' and -syihm, the predicative emphatic particle allowing for the deletion of the predicate from Base 2. The contrasting participant of Base 1 must occur before 'a-yihn 'isn't,' while the contrasting participant of Base 2 is suffixed by the contrary particle -ka.

The verb normally deleted from the Base 2 clause must be the same as the verb in the Base 1 clause. In the examples given the deleted predicates are enclosed in parentheses. Only the past tense suffix -pala can occur on the verbs in this construction. No permutation of Bases is allowed.

The particle -m/-mi in most instances appears to act as an emphatic opposition marker occurring optionally on the verb in Base 1.

Examples:

1) (B)ken ca-pala, hari-ce 'a-yihn (B)nga-ce-ka (ca-pala) -syihm
rice eat-pt Hari-A neg-is I-A-emp eat-pt emp
'It wasn't Hari (who) ate the rice, on the contrary, it was I (who ate it).'

2) (B)'uhcu 'kola bacaar-Ti 'pip-pala-mi, kon-ce 'a-yihn (B)nga-ce-ka
that child bazaar-to send-pt-emp Kon-A neg-is I-A-emp

('pip-pala) -syihm
send-pt emp
'Kon didn't send that child to the bazaar, on the contrary it was I (who sent him).'

3) (B)nga-ce ca-pala-mi 'khu 'a-yihn (B)ken-ka (ca-pala) -syihm
I-A eat-pt-emp vegetable neg-is rice-emp eat-pt emp
'It wasn't vegetables I ate, on the contrary, it was rice (that I ate).'

4) (B)choo 'dihm-Ti them-pala ale-ce 'a-yihn (B)nga-ce-ka (them-pala)
rope house-in place-pt yng-bro-A neg-is I-A-emp place-pt

-syihm
emp
'It wasn't my young brother (who) placed the rope in the house, on the contrary, it was I (who placed).'

Abbreviations.

Used in Formulae:

Add	addition/additional
Adver	adversative
Aff	affix
Alt	alternate/alternative
Anti	antithesis
AR	axis relator
Cj	conjunction
Cl	clause
Comp	comparative/compared
Cond	conditional
Conn	connective
Corel	correlative
Conseq	consequent
Const	construction
Coord	coordinate
Dep	dependent
Iden	identity
Incomp	incomplete
Indep	independent
Init	initial

Interr	interrogative
Inton Pat	intonation pattern
Mar	margin
Neg	negative
Pos	positive
Prop	proposition
Rel	relative
Thes	thesis

Used as Glosses for Tamang Examples:

A	actor
advl	adverbializer
amt	amount
answ	answer
bro	brother
caus	causative
comp	compulsive
concess	concessive
cond	conditional
cont	continuous
def	definite
eld	elder
emp	emphatic
fact	factive
fut	future
hab	habitual
hon	honourific
imp	imperative
indef	indefinite
neg	negative
NL	Nepali loan word
nom	nominalizer
permiss	permissive
pl	plural
pres	present tense
pt	past tense
qm	question marker
ques	question
rpd	repeated
rs	reported speech
uncert	uncertainty
vb	verb
yng	young/younger

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Footnotes.

[1] For further details about emphasis, see Taylor, Doreen. 1973. Clause patterns in Tamang (Section B.1.c, Emphatic Focus), in Hale 1973.

[2] Robert Stoll (1961 p. 161) makes the following comments on the use of the terms "prime" and "composite" when speaking about statement calculus, "Our first concern here is the analysis of the structure of a composite sentence (that is, a declarative sentence in which one or more connectives appear) in terms of its constituent prime sentences (that is, sentences which either contain no connectives or, by choice, are regarded as 'indivisible')." We are considering prime sentences in this paper as those which contain no connectives.

[3] For further information regarding the function of nominalized clauses see Taylor 1973 (Section D.1) as above.

INDEX TO TAMANG

A. Introduction. 197

B. The Tamang Sentence System. 198

1. Peripheral Items 199
2. Nuclear Structures 201
2.0 Overview. 201
2.1 The Sequential Construction 204
2.2 The Concurrent Construction 208
2.3 The Concept-Result Construction 210
2.4 The Reason-Result Construction. 211
2.5 The Conditional Construction. 213
2.6 The Contrafactual Construction. 215
2.7 The Generic-Specific Construction 216
2.8 The Additive Construction 217
2.9 The Contrastive Construction. 219
2.10 The Correlative Construction 220
2.11 The Comparative Construction 222
2.12 The Antithetical Construction. 223
2.13 The Concessive Construction. 224
2.14 The Interrogative-Alternative Construction 226
2.15 The Alternative Construction 227
2.16 The Contradictory Construction 229

Abbreviations 230

References. 232

Footnotes 233

Clause Patterns in Parengi-Gorum

F. Richard Aze

A. Introduction.

1. The Language.

The data in this paper is from the Parengi language, otherwise known as Gorum. It is spoken by about 10,000 persons in the Koraput District of Orissa (India), and extends a little southwards into the Visakhapatnam District of Andhra Pradesh.

Parengi is a member of the Southern group of Munda languages, which in turn belongs to the Austro-Asiatic phylum and bears some resemblance to the Mon-Khmer languages of S. E. Asia.

2. Research Details.

There is no earlier description of any aspect of Parengi grammar except for Arlene Zide's paper entitled "Transitivity and Causative in Gorum," which is to appear in the Journal of Linguistics in late 1972. I am indebted to her for the loan of a pre-publication copy of that paper.

The writer began his field work in Parengi under the auspices of Deccan College, Poona, in early 1969; but much of the material for this paper was prepared at a linguistic workshop held under the joint auspices of Andhra University and the Summer Institute of Linguistics in Visakhapatnam, in early 1972. During the workshop period the writer greatly benefited from consultant help given by Dr. Kenneth L. Pike and Dr. Ronald L. Trail. I am also indebted to Dr. Austin Hale for his encouragement and stimulation to develop along new lines of thought.

The person to whom the greatest acknowledgement is due is my Parengi language-helper, Dombaru Dhor Naik of Bhejaguda village (near Matili, Koraput District). He is one of the very few Parengi men who are literate. He was educated to eighth grade in an Oriya school, and can write Oriya and Parengi fluently. He is very intelligent, can think abstractly and has spent many hours working at my desk. Without his help my understanding of the Parengi language would be considerably less.

This paper covers the simple clause types of Parengi and seeks to establish patterns of contrast between clause types. The approach is a joint development of Dr. Kenneth L. Pike and Dr. Austin Hale. This paper was in part supported by a grant from the United States Office of Education, Washington, D.C., on contract number OEC-0-9-097721-2778 (014).

The Parengi data is given in the phonemic transcription which was suggested in the writer's earlier paper, "Parengi (Gorum) Phonemic Summary" (Deccan College and Summer Institute of Linguistics, Sept. 1971, mimeo). The same transcription is used in the Parengi texts which formed the data for a concordance processed by the Linguistic Information Retrieval Project of the Summer Institute of Linguistics and the University of Oklahoma Research Institute, and sponsored by Grant 95-270 of the National Science Foundation. Part of that body of Parengi texts appears in the same workshop report as this clause paper.

3. Method of Analysis.

Sorting by Tree Diagram. Dr. Austin Hale has conceived a chart showing the various semantic roles of the dramatis personae (persons and things involved in a drama) of the clause. It was his aim to construct a universal etics of sememic predicate function (at clause level) which would enumerate, in principle, the possible range of the sememic predicate function. Further he wanted to make clear the range of phenomena covered by each possible entry and to relate each entry to every other entry in such a way as to show its place in a coherent closed system.

The chart is organized in terms of three dramatis personae, Agent, Undergoer, and Site; and two situations, State and Event. The distinctions between animate/inanimate, effected/uneffected, complement/no complement, are below the threshold of the Hale chart. Such distinctions may give rise to different clause types under a particular terminal node (and these distinctions are relevant for various processes of clause derivation), but the basic semantic roles of the dramatis personae involved are not changed.

The following is Hale's chart:

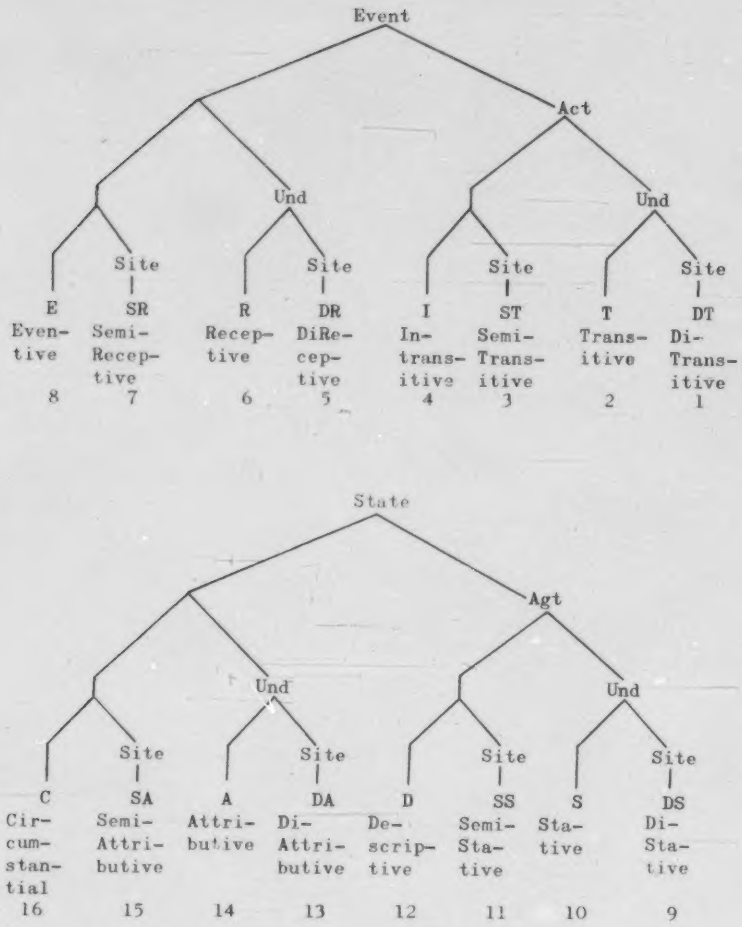


Figure 1. Chart of Etic Clause Types

The organization of the chart is that each right-branch from a node contributes a DP (dramatis persona), while a left-branch does not do so. Starting from the top of the tree, the first node always refers to the presence or absence of an Actor, the next node to that of an Undergoer, and the third node to that of a Site.

In using the Hale chart, I have made the following definitions:

State: Mode of existence; situation.

Event: Anything that happens; an action or process. (An 'action' is an activity or doing. A 'process' is a progressive movement or state of activity--i.e. changing state.

Actor or Agent: That DP which initiates the action, whether intentionally or otherwise. It can be the causer, the initiator, or the stimulus. It may be animate or inanimate. Often, but not necessarily so, it is acting on another DP.

Undergoer: That DP which undergoes or experiences the action, process, or state.

Site: A physical location. This may be an inanimate bound location, or an animate location (typically Dative case).

The Site is not to be confused with an Outer Locative. A site may be thought of as an intimate physical location, one which is very closely linked to the main verb of the clause and is directly involved in the Action or State. On the other hand, an Outer Locative is the 'setting' (or 'scene') of an action (or state?) and is not directly involved in the action. It may well be that the Outer Locative is a sentence level tagmeme and able to apply to more than one clause within a sentence.

The approach of the analyst is to 'file' each example of a clause in his data under one of the terminal nodes of the Hale chart (one hopes there is little residue!). Occasionally there may be some doubt in the analyst's mind as to role of the DP in a particular clause. In such a case Dr. Hale suggests that the analyst take note of the grammatical organization of the clause, as well as the sememic situation. For example, if one had doubts as to whether a DP was taking the role of Undergoer or Site, one would assign it the role of Site if it carried the marker etur, because etur typically indicates the role of Site.

A distinction needs to be made between those clauses which are basic (inherent) under a particular node, and those which are there by derivation from another clause. That is, some clauses are 'at home' under a node and others are 'visitors.' Those clauses which are basic types are dealt with in Section B of this paper, and the derived types are dealt with under Sections C and D.

Description. After the clause types are sorted according to the Hale chart, they are described by means of a system of six-box formulas. This system is currently being developed by Dr. K. L. Pike.

The six boxes are in a two-by-three matrix and are numbered as follows:

	Func.	Class	Item
Gr.	1	2	3
Sem.	4	5	6

Figure 2. Six-box System

The upper row is grammatical and the lower row is sememic. The first column corresponds to the notion of Slot or Function; the second to Filler, Class, or Set; and the third to the actual Language Data. The various grammatical and semantic functions and the constructions which may be found in the six boxes in this paper are:

Grammatical	Box 1:	Subject, Object, Adjunct, Referent, Complement, Predicate
	Box 2:	Nominal Phrase, Noun, Adjectival Phrase, Pronoun, Infinitival Clause, Paragraph, Axis-Relator Nominal Phrase, Independent Active Indicative DiTransitive Verb Phrase, etc.
	Box 3:	Parengi language data
Sememic	Box 4:	Agent, Undergoer, Site, Predicate Extension, Action, Process, State, Time, Outer Locative, Reason, Purpose, Associate, Manner
	Box 5:	Item, location, goal, source, setting, animate, concrete, abstract, etc. (The exact nature of Box 5 fillers is still not definite.)
	Box 6:	Translation into English

In the clause formulas in this paper, a four-box representation (i.e., with boxes 1, 2, 4, 5) has been used to describe the nuclear tagmemes: i.e, Subject, Object, Referent and Predicate. Peripheral tagmemes have often been described only with a Box-4 label such as Time, Outer Locative, Reason, Purpose, Manner, Associate, as what is in these 'boxes' does not affect the clause analysis presented here. The grammatical function of these peripheral tagmemes is typically Adjunct.

(It should be mentioned that Pike uses his 6-box approach on any level of the grammatical hierarchy, not just clause level.)

The fillers of Box-1 are defined as follows:

Subject: That DP which is the topic of the clause.

Object: That DP which is affected in a dynamic action.

Referent: That DP, other than the Subject or the Object, which is alluded to by the Predicate and is necessary to the sense of the clause.

Adjunct: Any tagmeme which is ancillary or peripheral, such as Location, Time, Reason, Manner, etc.

Predicate: The verbal part of the clause. (It is generally marked for aspect, voice, tense, and mode.)

Complement: Something which is needed to complete the sense of a clause, but is not in itself a DP, or something which otherwise extends the meaning of the Verbal Phrase.

Many of the fillers of the other boxes have already been defined or are so widely known as to not require definition here. However, two of the terms do need further definition.

Predicate Extension: (Box-4) It gives information which is relevant to the clause, but is not directly involved in it. It is a 'phenomenon' and includes such categories as item, person, abstraction, quality, state, event, relation, fact and report. This is what, in my opinion, M. A. K. Halliday refers to as 'Range.' It is sometimes used as an embedding device to introduce a non-nuclear DP into a clause--e.g., He is tall. He fears (when he sees) tigers. He learned (to speak) Hindi.

Nexus: (Box-2) A verb-headed construction functioning as a Nominal Phrase--e.g., 'My going to Cuttack was stopped.'

4. Abbreviations and Symbols.

Box 1:

ADJ	Adjunct
CO	Complement
O	Object
P	Predicate
REF	Referent
S	Subject

Box 2:

Adj P	Adjectival Phrase
ARNP	Axis-Relator Nominal Phrase
ARpro	Axis-Relator pronoun
Att	Attributive
DepCl	Dependent Clause
DiAtt	Di-Attributive
DiRec	Di-Receptive
DiTr	Di-Transitive
Ev	Eventive
Int	Intransitive
NP	Nominal Phrase
Par	Paragraph
pro	pronoun
Rec	Receptive
SRec	Semi-Receptive
STr	Semi-Transitive
Tr	Transitive
VP	Verb Phrase

Box 4:

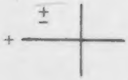
Agt	Agent
Asc	Associate
Csr	Causer
Int	Initiator
Mnr	Manner
OLc	Outer Locative
PEx	Predicate Extension
Prp	Purpose
Rsn	Reason
Si	Site
Tmp	Time
Und	Undergoer

In Illustrative Text:

Target language data is written in phonemic transcription. (A more comprehensive description of the glosses is given in the Parengi Texts published in the same series as this paper.)

F	Future tense
Fo	Focus
Lk	Link
P	Past tense
pres. cts.	present continuous
Sp	Speaker orientation (where the speaker is, in relation to the action.)
-	Morpheme break
*	In the recorded utterance the word marked by an asterisk was not actually said, but it has been reconstructed from the agreement with the Predicate so that the reader may readily realize the number of DPs involved.

Miscellaneous:

Aor	Aorist
Cts	Continuous
Dl	Dual
DP	Dramatis Persona
Fut	Future
Neut	Neutral
Perf	Perfect
Pres	Present
+	Obligatory tagmeme
±	Optional tagmeme
+/-	Conditioned occurrence of a tagmeme
	A nuclear tagmeme that is optionally deletable

B. Basic Patterns.

1. The Contrastive System in Parengi.

1.1 The General Organization of the Grammatical Components within the Clause and the Marking of their Semantic Roles.

The reader will be able to follow the analysis and illustrations more readily if he is aware of the internal organization of the clause in Parengi.

All the nuclear DP's may be pronominally incorporated as affixes into the Verb phrase. The Subject of the verb is typically prefixed to the verb stem (though third person plural is shown by a suffix). The Object and Referent are pronominally incorporated, but as suffixes. However, the Object and a Referent cannot both be incorporated simultaneously. When both occur in a clause, then it is the Referent that is incorporated.

The particular pronominal references are shown below. There are no gender distinctions.

Person	Nominative	Dative	S in VP	O/Ref in TP	Gloss
1s	ming	e-ning	ne-	-ing	'I'
2s	mang	e-nom	mo-	-om	'you'
3s	no?n	e-no?n			'he'
1pl	bileng	en-leng	le-	-ileng	'we'
2pl	maing/baing	en-beng	bo-	-ibeng	'you'
3pl	no?n-gi	e-no?n-gi	-ey/-gi		'they'

Figure 3. Pronominal Reference Morphemes

In Independent Clauses, because of the pronominal incorporation into the Verb Phrase, the Predicate always agrees with the Subject and Object or Referent, in person and number. This agreement will be taken as being understood by the reader and will not, therefore, be indicated in the clause formulas given later in this paper. The only construction in Parengi which does not show this concord is the first person singular subject in the hortatory mode. (See Section C.2.2)

A very significant factor in the Parengi clause is that the roles of Undergoer and Agent are also marked in the verb phrase. The infinitival form of the verb shows this most clearly, for when the Subject is the Undergoer, then the verb stem is affixed with -nu?. Otherwise, the verb will be affixed with -u and the Subject, if there is one, will be the Agent. (It appears that there is no other choice for Subject, other than Agent or Undergoer.)

Other verbal suffixes may occur affixed to -nu? in which case the 'n' or the 'u' or both may be lost, but the glottal is always retained. In one instance the glottal remainder of -nu? turns up in the next word as there appears to be no room left for it in the verb phrase. For example in the conditional verb phrase:

ui ne?n ...
go if/Und
'If he goes...'

The verb 'to go' is *ui-nu?*, and *nen* is 'if.' But in conditional clauses the verb is not inflected in any way whatsoever. Hence the appearing of glottal on the next item, otherwise basic information would be lost.

In their full forms, animate Objects and animate Referents (i.e., Indirect Objects) are marked *etur* 'to.' (This feature gives some support to Fillmore's view that animate objects are basically Dative case.) However, when two such items co-occur only the Referent is marked.

The *etur* marking is one of the key factors in distinguishing a Referent (Intimate Site) from an Outer Locative. Typically *etur* marks animate nouns, in which case the marking is obligatory. An inanimate Referent (item or place intimately involved in the action or state) is only optionally marked by *etur*, whereas an Outer Locative is never marked by *etur*. Examples of this phenomenon are given elsewhere in this paper.

The nominal phrase filling the Adjunct as Associate tagmeme in a clause is always marked by *bə?tur* 'with.' There is some evidence to suggest that if the Associate is personal its role is that of an Accompanying DP, and if it is impersonal its role is that of an Instrument.

With the pronominal incorporation of the Subject and Object or Referent into the Verb Phrase, together with the marking of each of the semantic roles as just described, the order of tagmemes in the Parengi clause is not usually critical to the meaning of the clause. The one exception to this is that in the Attributive-Equative clause type, the specific item must precede the generic item.

The order of tagmemes as given under 'Expanded Formula' in the description of each clause type is the most common order. Sometimes the Sentence-Focus will be on a tagmeme other than the Subject of the clause, and in such a case, that tagmeme chosen as sentence topic will occur before the Subject. If at any time there are more than three of the Adjuncts chosen, then some are placed after the Predicate (as a sort of after-thought), but such heavily loaded clauses are not common. However, the Manner tagmeme must immediately precede the Predicate. The Purpose tagmeme may be postposed, but this is unusual. The other Adjuncts such as Time, Location, and Associate are often postposed. Sometimes the Subject tagmeme itself is found after the Predicate.

At this stage in the analysis, insufficient is known of the restrictions inherent on these peripheral tagmemes to justify using the occurrence or non-occurrence of any one of them as primary evidence in distinguishing clause types.

Another factor which is not indicated in the given clause formulas—because it is not relevant in the setting up or distinguishing of clause types—is that the Time, Outer Locative, Subject, or Manner slots may be filled by up to three Nominal Phrases in apposition.

1.2 The Contrastive System of Clause Types.

The basic clauses in Parengi are considered to be those Independent clauses whose predicates are in the Indicative mode and the Active or Stative voice. As we now refer back to the Hale chart of Sememic Predicate Function, we see that our basic clause types in Parengi do not use all sixteen postulated etic types. The Event (Action) side is well taken care of with all eight types occurring, but on the state side there are only the Attributive and Diattributive types.

The next fact to be noted is that the '-nu?' constructions only occur under nodes Di-Receptive and Receptive, on the Action side, and under the corresponding nodes, Di-Attributive and Attributive, on the State side. That is, -nu? verbs only occur with just an Undergoer, or an Undergoer and a Site. It is also to be noted that the term Undergoer covers a wide range of situations:

i. the goal in a transitive or ditransitive clause.
he hit the dog

ii. processor in a mental, emotional or physical process.
he learnt to speak English

iii. the attribuand (ascribed item) in an ascription.
the tree is tall

iv. the identified item in an equation.
that box is mine

v. the possessed item in a co-location.
I have a house

It is also to be noticed that the great majority of the verbs in the Parengi dictionary fall primarily under the Transitive or Receptive nodes. This suggests that the verbs are primarily either Agent orientated or Undergoer orientated. Of the remaining nodes the Di-transitive and Di-Receptive are next in the number of verbs basic to them; then Intransitive and Eventive; and finally Semi-Transitive and Semi-Receptive. This is not entirely unexpected. The second set is like the major set (Transitive, Receptive) but has the Referent added. The third set is like the major set, but has the Undergoer missing. Then the last set (Semi-Transitive and Semi-Receptive) is more remote in that compared with the major set an Undergoer is lost and a Referent added.

This focus towards Agent orientation or Undergoer orientation reflects the ergative structure of the language which is organized in terms of cause and effect; the changer and the changed; what started it off and what was affected by it. The clause types will then be distinguished according to whether they are Agent or Undergoer focused.

In Parengi then, there appears to be a primary division between State and Event, and then a secondary division within Event clauses into the Receptive group and the Transitive group. The general characteristics of each are shown in the following chart.

	State	Event	
No. on Hale chart / Group	13-14 Attributive	5-8 Receptive	1-4 Transitive
Dynamics (forces involved)	Static	Kinematic	Dynamic
	Pertains to bodies at rest and shows the relations between forces in equilibrium	Pertains to pure motion (admitting conceptions of time and velocity, but excluding that of force.)	Pertains to forces in motion
	Includes ascription (i.e., attribution) and fact.	Includes change of position, change of state, reception of state, mental process, etc.	Involves or depends on mechanical activity.
		Passive or potential as opposed to active	Motive, active, as opposed to potential.
	State: condition, mode of existence, situation	Process: progressive movement or state of activity	Action: Motive, active, as opposed to potential.
Information focus (i.e., Subject)	Undergoer (Attribuand, Statee)	Undergoer (Effected, Changee)	Agent (Causer, Changer)

Figure 4. Dynamics of State-Event

It is very interesting to see how well the science of dynamics accounts for Parengi clause groups! But, is this not to be expected in a language which is structured ergatively?

Having used the Hale chart as a heuristic device for the sorting of basic clause types, the following common contrastive features can be seen.

Feature	State	Event
Causative	–	+
Passive, Potential	–	+
Benefactive/Reflexive	–	+
Verbal auxiliaries (except lu?n 'pres cts')	–	+
Imperative	–	+
Periphery	Restricted to Time and Reason	Unrestricted
Node-variant Derivations	–	+ All event clauses can be stativized by derivation.*

Figure 5. Contrastive Feature Chart

*The writer is at present unaware of any means of deriving an Event clause from a State clause.

Some other points to note:

i. Reflexive, benefactive, and potential aspects (marked by -nu?, but with no change in node) are only to be found in Transitive and Ditransitive clauses. In these cases the -nu? indicates that the Agent is himself 'affected' in the situation.

ii. Animateness does not appear to be a relevant factor in distinguishing basic clause types. However, it is noticed that a 'real' causer (second causer) only operates on an animate item, and that the Purpose tagmeme can only occur with an animate subject.

iii. The two peripheral items that occur on all clause types are Time and Reason (though reason is more common in occurrence to the right hand side of the chart.) It may well be that Time and Reason should be treated at sentence level instead. It is also noticeable that the variety and frequency of peripheral items increase towards the right hand side of the chart.

iv. The Outer Locative slot is a particularly difficult one to handle. As mentioned elsewhere, the border line between Outer Locative and Referent is blurred. It may be that Outer Locative is a sentence feature; if so, it would clarify matters. For the time being note that Outer Locative tends to occur in the Transitive group of clauses, and in those clauses of the Receptive group which involve a change of position. The Outer Locative does not occur in Attributive clauses and change-of-state or receptive-state Receptive clauses where the Outer Locative, if it did occur, would be confused with or clash with the Referent. Only directed motion verbs, such as 'take' or 'go,' may take an Outer Locative goal or an Outer Locative source.

2. The Contrastive Clause Types.

The following is a description of the ten basic clause types established for Parengi. For each clause type the 'Four-Box' formula is given for each of the nuclear tagmemes in the construction. This is followed by a description of other features associated with that clause type.

The ten clause types are as follows (the numbers refer to the terminal nodes on the Hale Chart):

1 Di-Transitive
2 Transitive
3 Semi-Transitive
4 Intransitive
5 Di-Receptive
6 Receptive
7 Semi-Receptive
8 Eventive
13 Di-Attributive*
14 Attributive*

2.1 Di-Transitive Clause.

```
   ± S   ¦ NP,pro        ± REF  ¦ NP,ARNP,ARpro
+ ------+-------     + -------+--------------
   Agt   ¦ item           Site  ¦ location


       ± O   ¦  NP,ARNP,Par,DepCl       P       ¦ DiTr VP
    + -----+------------------     + -------+----------------------
       Und   ¦  item                Action  ¦ Agt re-locates Und
```

Clause Meaning: The Subject acts on the Object and re-locates it with respect to the Referent.

Periphery: Time, Outer Locative, Reason, Purpose, Manner, Associate.

Expanded Formula: ± T + Agt ± OLoc + Si + Und ± Rs ± Pur ± Asc ± M + P

Sample Verb Stems:	bay:	'send'	li?n	'apply, rub'
	ra?n	'milk'	da	'do'
	ta?y	'give'	kun	'sing'
	za?	'solicit'	a?y	'splash'
	bu?	'put something inside another thing'	zo?n	'brush or wipe something off something'

---

*Although this numbering is not consistent with the outline of this paper, we have chosen it to run parallel with the Hale Chart.

la?mang	'reach towards something for something'	ta?	'remove or relocate something'
sun	'say' (in which Object is Par.)	zel	'tell' (in which Object is Dep. Cl.)

Comments:

i. All the verbs in this clause type take -u in their infinitival form.

ii. Within the set of Ditransitive verbs there is a wide range of diversity, especially as to the part played by the Referent. However, the Referent's part in the action is probably specified by the semantic content of each particular verb (e.g., the verb 'give' makes the Referent a beneficiary.)

iii. The verb ra?n 'milk' might well be a Transitive verb as the only object that it can take is ar'u?m 'milk, breast.' This may therefore be considered a Complement, in which case 'cow' would be the Object rather than the Referent.

Examples:

1) (Agt)bolram (Si)krist'el etur (Und)lorung (P)li?n-ru
boldram christel to oil rub-P
'Boldram rubbed oil on Christel'

2) (Agt)ming* (Si)e-nom* (Und)dabu (P)ne-za?-r-om
I to-you money I-solicit-P-you
'I solicited money from you'

3) (Agt)ming* (Si)bolram-di etur (Und)uba? (P)ne-ta?-tu
I boldram-Fo to thorn I-remove-F
'I will remove the thorn from Boldram'

4) (T)udubun (Agt)ming* (OLoc)zalaput' (Si)e-nom*
yesterday I jalaput to-you

(Und)t'anka-bo?y (P)ne-ta?y-om
rupee-one I-give-you
'Yesterday, at Jalaput, I gave you a rupee'

5) (Pur)lorung aku?y da?n (Agt)mang* (Si)e-ning* (Und)dabu
oil buy for you to-me money

(P)mo-ta?y-ing
you-give-me
'You gave me money to buy oil'

6) (Agt)ming* (Si)e-nom* (Und)da? (Asc)timpani ba?tur
I to-you water tray with

(P)ne-a?y-t-om
I-splash-F-you
'I will splash water on you with the tray'

2.2 Transitive Clause.

+	± S	NP,pro	+	± O	NP,ARNP,ARpro	+	P	Tr VP
	Agt	item		Und	item		Action	Agt acts on Und

Clause Meaning: The Subject acts on the Object.

Periphery: Time, Outer Locative, Reason, Purpose, Manner, Associate.

Expanded Formula: ± T + Agt ± OLoc + Und ± Asc ± M + P

Sample Verb Stems:

edang	'warm'	zum	'eat'
tagu	'scorch, burn'	gulom	'know'
zo?	'sweep'	ol	'write'
tiba?	'uproot'	pe?n	'blow'
lida	'laugh'	gi?	'see'
la?	'hit'	ki?	'herd'
ga?y	'fry'	pongi?n	'extinguish'
ru?	'open, pour'	per	'burn (of spices)'
go?n	'pick fruit'	sada?	'sting'

Comments:

i. All the verbs found in this clause type take -u in their infinitival form.

ii. The set of verbs that can function in the Predicate of a Transitive clause is a particularly large set.

iii. There is a sub-class of impersonal verbs, viz.,

per	'burn' (of spices)
sada?	'sting'
tagu	'burn, scorch'

These form a sub-type of the Transitive Clause. It appears that a personal subject would not meet with the semantic requirements of these verbs. For example, tagu requires a subject that emits heat, per requires a subject such as a spice, and sada? requires a subject that sets up an irritation.

Examples:

1) (Agt)no?n (Und)e-ning (P)gulong-ing
he to-me call-me
'He called me'

2) (Agt)kapi (Und)e-ning* (P)tagu-r-ing-ay
coffee to-me burn-P-me-Sp
'The coffee burned me'

3) (Agt)no?n-gi (Und)nor'ia (P)se?m-ey
they coconut sacrifice-they
'They sacrificed coconuts'

4) (OLoc)bileng a?sung loge (Agt)asel saybu bo?y (pur)gorum sama
we house near white master one gorum story

soy-nu? da?n (Und)a?sung (P)gu?-ru
learn-Inf/Und for house plant-P
'A white man built a house near our house to learn Gorum stories'

5) (Agt)mersa (Rs)ne-zum-u da?n (Und)e-ning* (M)abu?n (P)per-r-ing
chillies I-eat-P for to-me much burn-P-me
'The chillies burned me because I ate them'

6) (OLoc)a?sung (Agt)bileng (Asc)kar'ma?n ba?tur (Und)ao?m
house we wife with vegetable

(P)le-zum-tu
we-eat-F
'We will eat vegetables with the wife in the house'

2.3 Semi-Transitive Clause.

+	± S	NP,pro	+	± REF	NP,ARNP,ARpro	+	P	STr VP
	Agt	item		Site	location		Action	Agt is relocated

Clause Meaning: Subject moves in relation to the Referent.

Periphery: Time, Reason, Purpose, Associate, Manner.

Expanded Formula: ± T + Agt + Si ± Rs ± Pur ± Asc ± M + P

Sample Verb Stems:

su?n	'reach, arrive'
gur	'enter'
ua?y	'come'
ir	'jump (over)'

Comments:

i. All the verbs in this clause type take -u in their infinitival form.

ii. The inventory of verbs in this clause type is very limited.

iii. Those verbs involving directed motion require the Referent to be the source or goal of the action.

iv. The verb <u>ua?y</u> 'come' is actually derived from the verb <u>ui-nu?</u> 'to go' together with the directional affix -<u>ay</u>. (i.e., ui - ? + ay --> uia?y --> ua?y.)

Examples:

```
1)  (Agt)ming* (Si)a?sung (P)ne-gur-ru
         I          house      I-enter-P
         'I entered the house'

2)  (T)bio?gi    (Agt)rail gar'i    (Si)puri-n  (P)su?n-tu
       tomorrow       rail vehicle      puri-Lk    reach-F
       'Tomorrow the train will reach Puri'

3)  (Agt)ming* (Si)kurchi-di ± etur (P)ne-ir-ru
         I          chair-Fo    to      I-jump-P
         'I jumped over the chair'

4)  (Agt)no?n (Asc)kurta? ba?tur (M)begi    (P)ua?-t-ay
         he         horse  with      quickly    come-F-Sp
         'He will come quickly with a horse'

5)  (Agt)tile?y-di  (Rs)pu?t'a  d'uka da?n (P)ua?-t-ay
         old man-Fo      stomach pain  for      come-F-Sp
         'The old man will come because he's got a stomach ache'
```

2.4 Intransitive Clause.

```
   ± S   ¦  NP,pro    P       ¦  Int VP
+ ------+-------- + -------+-----------------
   Agt  ¦  item      Action  ¦  relevant to Agt
```

Clause Meaning: Subject involved in a mechanical activity.

Periphery: Time, Outer Locative, Reason, Purpose, Associate, Manner.

Expanded Formula: ± T + Agt ± OLoc ± Rs ± Pur ± Asc ± M + P

Sample Verb Stems:

ye?	'cry out'
ye	'run, go quickly'
or'ing	'walk'
ir	'jump'
ku?	'cough'
pung	'flood, collect, fill up'
mo?	'emit smell'
lum	'dissolve'

Comments:

i. All the verbs in this clause type take -<u>u</u> in their infinitival form.

ii. One would expect the subject of 'dissolve' to be considered as undergoing a change of state and consequently to be marked by -nu?, but such is not the case. On the basis of grammatical form, therefore, it has been classified with the Intransitives.

iii. The verbs pung 'flood,' mo? 'emit smell,' and lum 'dissolve' appear to be impersonal verbs.

Examples:

1) (Agt)kal-di (P)mo?r-ay-ni
drain-Fo smell-P-Sp-Hab
'The drain always stinks'

2) (Agt)bo?sun (P)lum-tu
salt dissolve-F
'Salt will dissolve'

3) (Agt)ming* (OLoc)lobo?-n (P)ne-ir-ru
I ground-Lk I-jump-P
'I jumped on the ground'

4) (Agt)no?n* (Rs)kuku?zor da?n (P)ku?-ru
he cough for cough-P
'He coughed because of a cough'

5) (Agt)bubong digin (T)pal-u-nu kitur (P)or-or'ing-ey
baby Cl born-Inf-Aj time Neg-walk-they
'Babies do not walk at the time of their birth'

2.5 Di-Receptive Clause.

+	S	NP,pro	+	REF	NP,ARNP,ARpro	+	P	DiRec VP
	Und	item		Site	location		Process	Und relates to Site

Clause Meaning: The Subject is involved with a second DP in a process or pure (unforced) motion.

Periphery: Time, Outer Locative, Reason, Purpose, Manner.

Expanded Formula: ± T + Und ± OLoc + Si ± Rs ± Pur ± M + P

Sample Verb Stems: All the verbs in this clause type take -nu? in their infinitival form. These verbs fall into four groups.

Group I - Change of Location.

ui	'go'
duku	'stay'
oting	'lean'
sa?n	'pass by'

lala?n	'flatten oneself'
ta?	'appear, re-locate oneself'

Comments:

i. To the English speaker these verbs are similar to those found under Semi-Transitive because he would consider that the Undergoer here is an Agent.

ii. When *duku* 'stay' (i.e., zero change of location) and *ui* 'go' have an animate Referent, then the usage is figurative and implies marriage.

iii. It may well be that *lala?n* (partial reduplication of *la?n*) 'flatten oneself,' *sa?n* 'pass by,' and *ta?* 'appear' should be considered as reflexive forms of the corresponding transitive verbs, which are *la?n* 'flatten,' *sa?n* 'separate,' and *ta?* 'remove or extract something' respectively. However, in addition to their *-nu?* derivation these verbs obligatorily take a Referent and are therefore classified here under Di-Receptive.

Examples:

1) (Und)bubong-di (Si)e-ning* (P)oting-t-i?ng
baby-Fo to-me lean-F-me/Und
'The baby will lean against me'

2) (Und)bileng* (Si)komla-n ba? (P)le-i-tu?
we komla-Lk place we-go-F/Und
'We will go to Komla's place'

3) (Und)bubong-di (Si)mang ba? (P)lala:n-t-o?m
baby-Fo you place flatten-F-you/Und
'The baby will flatten himself against you'

4) (T)udubun-di (Rs)ungong-u da?n (Und)ming* (Si)kinmung
yesterday-Fo night-P for I kinmung

(P)ne-k-ru?
I-stay-P/Und
'Yesterday, because it got dark, I stayed at Kinmung'

Group II - *Olfactory*.

mo?		'smoke (cigarette, etc.)'
mumo?	momo?	'smell something'

Comments:

i. The question arises as to whether these verbs are derived from, or otherwise related to, the Intransitive verb *mo?-u* 'to emit a smell.' Compare the following examples.

(Agt)tangku (P)mo?r-ay
cooked rice smell-P-Sp
'The cooked rice emitted an aroma' (Intransitive)

(Und)ming (Si)tangku (P)ne-momo?-ru?
I cooked rice I-smell-P/Und
'I smelled the cooked rice' (Di-Receptive)

The writer's subjective impression is that the verbs in each example are "at home" in their respective categories and are not grammatical derivatives of each other (though they are lexically cognate).

It is to be noted that the subject of the Intransitive verb is in a creative activity, while the subject of the Di-Receptive verb is a processor. Also, the Agent of the Intransitive verb corresponds to the Site of the Di-Receptive verb. This same feature is seen in the Passive derivation of some Transitive verbs (see Section D.1).

There is no known derivation to change an Intransitive clause to a Receptive or Di-Receptive clause. The above might be an example of such a derivation, but until there is further evidence the writer chooses to classify these clauses under Di-Receptive.

Examples:

1) (Und)bolram-di (Si)ao?m-di etur (P)mumo?-ty?
boldram-Fo vegetable-Fo to smell-F/Und
'Boldram will smell the vegetables'

2) (Und)no?n (Si)odol (P)mo?-tu?
he cigar smoke-F/Und
'He will smoke a cigar'

Group III - Change of State.

da- 'become'

Comments:
Here and in the Receptive clause type da 'become' may function in exactly the same contexts as duku 'be' does in the Di-Attributive and Attributive clause types respectively. At first sight da appears to be a State verb as it indicates the coming into being of a state. However, the fact that the verb can be 'stativized' shows it to be considered as an event in its basic form.

Examples:

1) (Und)ar'i da?u (Si)reil t'eson o?tur (PEx)pa:c mail sanga?y
that village rail station from five mile distant

(P)da-tu?
become-F/Und
'That village will be five miles from the railway station'

2) (Si)e-nom (Und)ia?y boros (P)da-r-o?m
to-you how many year become-P-you/Und
'How old are you'

Group IV - Transitive-Receptive.

bam	'hit (target)'
suy	'pierce'
balbal	'heat'
dam	'cover'
miley	'please'

Comments:

i. These verbs are clearly lexically cognate to the corresponding transitive or receptive verbs, viz.,

bam-u	'to receive'	(Transitive)
su?y-u	'to pierce'	(Transitive)
balbal-u	'to heat'	(Transitive)
da?m-u	'to cover'	(Transitive)
mile?y-nu?	'like, happy'	(Transitive)

The question arises as to whether the Di-Receptive forms of the lexically cognate verbs are grammatically derived from the transitive or receptive verb. The transitive verbs themselves may take the Passive derivation which deletes the Agent from the frame of reference. But the Direceptive form differs from the Passive in that there is no underlying Agent. Compare the following examples:

a) (Agt)no?n (Und)bolram-di etur (P)da?m-u , (Asc)go?tung ba?tur
he boldram-Fo to cover-P cloth with
'He covered Boldram with a cloth' (Transitive)

b) (Und)bolram-di (P)dam-u? duku?
boldram-Fo cover-P/Und be/Und
'Boldram is covered' (Passive State)

c) (Und)go?tung (Si)bolram-di etur (P)dam-u?
cloth boldram-Fo to cover-P/Und
'The cloth covered Boldram' (Di-Receptive)

In example c) the cloth just fell on to Boldram, there was no Agent involved. But why should the cloth be considered the Undergoer? If the language is restricted to only being able to handle three DP's, then the subject of c) could not be an Agent (there was none) and there already is a Site, so the only choice left is Undergoer. So the Parengis may really consider the subject of c) to be a real Undergoer.

An alternative hypothesis, which perhaps is better, is to have a disjunctive definition for the function of -nu?. In these instances, the affix -nu? may indicate that the Subject is Non-Agent rather than Undergoer.

For the present the writer has decided to leave these forms as a sub-class of the Di-Receptive clause. If they are in fact derived clauses, then it is a different derivation from the usual -nu? (Passive) derivation. This is a matter for further investigation.

ii. It should be noted that these verb stems lose the glottalization of their corresponding transitive or receptive verb stem. However, the same feature has been noted when other transitive verbs take the -nu? Undergoer derivation.

Examples:

1) (Und)nay gar'i bo?y (Si)e-ning* (P)ar-miley-n-i?ng
what vehicle one to-me Neg-please-Und-me
'Not even one vehicle pleased me (by coming)'

(Compare this with the situation of mile?y 'happy' under the Receptive Clause, where the Subject is the Undergoer in the sense that he is the processor of an emotional state. In the example above, the vehicle is certainly not a processor of an emotional state!)

2) (Und)capi (Si)e-ning* (P)balbal-i?ng-ay
coffee to-me heat-me/Und-Sp
'The coffee burnt me'

3) (Und)kula (Si)e-ning* (P)dam-i?ng
tiger to-me cover-me
'The tiger covered me' (he pounced on me and pinned me down)

4) (Und)gusi?n (Si)e-ning* (P)dam-i?ng
ghost to-me cover-me/Und
'The ghost covered me' (he siezed me held me tight all over)

5) (T)udubun (Si)e-ning (Und)bo?y amon (M)dat'am (P)bam-i?ng
yesterday to-me one arrow much hit-me/Und
'Yesterday an arrow hit me hard'

6) (Rs)uba? ara? ba? ne-alam-u da?n (Und)uba? bo?y (P)suy-i?ng
thorn tree place I-touch-P for thorn one pierce-me/Und
'A thorn pierced me because I touched the thorn bush'

2.6 Receptive Clause.

+	±S	NP,pro,DepCl	+	P	Rec VP
	Und	item		Process	relates to Und

Clause Meaning: Subject is involved in a process or in a pure (unforced) motion.

Periphery: Time, Outer Locative, Reason, Purpose, Associate, Manner.

Expanded Formula: ± T + Und ± OLoc ± Rs ± Pur ± Asc ± M + P

Sample Verb Stems: All the verbs in this clause type take -nu? in their infinitival form. These verbs fall into three groups.

Group I - Change of State.

Personal Verbs:

ki?n	'die'	dima?n	'sleep'
bu?l	'be drunk'	mar	'wake up'
ara?n	'be startled'	da	'become'

Impersonal Verbs:

asin	'become well cooked'	zo?	'fruit'
		i?r	'sound'
ba?m	'head out'	liga?n	'snap'
buga?	'shatter'	asar	'dry out'
ge?m	'kindle, blaze'	kadu?	'disappear'

Comments:

i. The verb ki?n 'die' is unusual in that it takes both forms of the infinitive, ki?n-u and kin-nu?. E.g.,

(Pur)ki?n-u da?n (P)ui-tu?
die-Inf for go-F/Und
'He will go...to die'

(Pur)kin-nu? da?n (P)ui-tu?
die-Inf/Und for go-F/Und
'He will go...to die'

It is also noted that in the past and future tenses that it is the -nu? form that occurs, but in the present continuous tense the -u form occurs. It may be that the -nu? form occurs when the subject has actually succumbed to death at the 'time' of the verb.

ii. In this clause type the verb da 'become' may function in exactly the same contexts as duku 'be' does in the Attributive clause type. At first sight da appears to be a State verb as it indicates the coming into being of a state. However, the fact that the verb can be 'stativized' shows it to be considered as an event in its basic form.

It is particularly interesting to see that the Equative type of Attributive clause is negated with the verb da 'become' and not with the usual negative-state verb ingka 'not be.'

Examples:

1) (Und)no?n (P)kin-ru?
he die-P/Und
'He died'

2) (Und)ming* (M)dat'am (P)ne-bu?l-u?
I much 'I-drunk-P/Und
'I was very drunk'

3) (Und)i?tang (Asc)yeye?n ba?tur (P)asar-tu?
dung sun with dry-F/Und
'The dung will dry out with the sunshine'

4). (Und)tsent'ia (PEx)posu (P)or-da-nu?
sparrow quadruped Neg-become-Und
'Sparrows are not quadrupeds' (This is the only way to negate an Equative type of Attributive clause.)

5) (Und)sio: kula (PEx)zont' digin-nu roza (P)da-tu?
lion lion animal Cl-Aj king become-F/Und
'The lion will become the king of the animals'

6) (Und)ming kat'ak ui-nu? (PEx)bond' (P)da-ru?
I cuttack go-Inf/Und closed become-P/Und
'My going to Cuttack was stopped' (That 'I' is part of the dependent clause, the Nexus, and not the Subject of the main verb is shown by the fact that the Predicate is in the third person.)

Group II - Change of Position.

su?ng	'fall'	ur	'arise'
gon	'lie down'	koko	'sit'
dur'ung-sing	'set' (of sun or moon)	tinang	'stand'

Comments:

i. The verb dur'ung-sing 'set' is a little unexpected in this clause type. All other verbs indicating meterological phenomena occur in the Eventive clause type. This verb is clearly a compound verb using the Transitive verb dur'ung 'lower.' The derivation of sing is not known at present. However, as the verb dur'ung-sing does not occur in any other clause type it has been classified as Receptive.

ii. The verbs koko 'sit' and tinang 'stand' usually do not take a Referent, but instances have been recorded with what appears to be a Referent. However, the fact that the Predicate may or may not agree with this apparent Referent suggests that such forms may be un-grammatical.

Examples:

1) (Und)yeye?n-ki?n-di (M)d'ape (P)dur'ung-sing-u?
sun-god-Fo quickly set-P/Und
'The sun set quickly'

2) (T)saklia (Und)ming* (Rs)dima?n do?-r-ing da?n (P)ne-gon-ru?
morning I sleep feel-P-me for I-lie down-P/Und
'This morning I lay down because I felt sleepy'

3) (Und)ming* (PEx)pu?t'a (P)ne-koko-tu?
I stomach I-sit-F/Und
'I will sit the stomach' (a euphemism for 'defecate')

4) (Und)no?n* (Asc)ming ba?tur (P)koko-ru?
he I with sit-P/Und
'He sat with me'

Group III - Activity.

Those verbs indicating Activity may be subdivided into three types, viz.,

Physical:

tay:u?	'nod off'	asong	'defecate'
pongrey	'swim'	tida?	'wallow'
o?der	'grind grain'	garum	'growl'
po?y-po?y-lang	'whistle'		

Mental:

are?	'not want, refuse'	bana	'forget'
soy	'learn'	bitsar da	'think

Emotional:

butong	'fear'	amsi?	'hate'
butu?	'despair'	mangar	'pine'
guro?y	'shy'	asa	'believe, trust'
mile?y	'happy'	badu	'unwilling, reluctant'
zigar	'angry'		

Comments:

i. It is not uncommon for several of these verbs to incorporate a second DP as Referent and so take on the appearance of a Di-Receptive clause. However, my best informant tells me that the Referent in such cases is derived from an embedded clause which has been partly deleted. (The subject of the embedded clause would also be the subject of the main clause.) Examples of such partly deleted embedded clauses have been found in the Time, Reason, and Purpose slots of the Receptive clause type. (See examples 4 - 7.)

ii. Not all the verbs will tolerate this ungrammatical adding of a Referent. For example, zigar 'angry' will not do so.

iii. The agreement between the pseudo-Referent and the Predicate is optional.

Examples:

1) (Und)ming* (P)ne-bana-ru?
I I-forget-P/Und
'I forgot'

2) (Und)ming* (Si)guni-di etur (P)ne-are?-ru?
I girl-Fo to I-refuse-P/Und
'I refused the girl'

This is understood to be derived from:

(Und)ming (Rs)guni-di etur biba da-nu? da?n (P)ne-are?ru
I girl-Fo to wedding do-Inf/Und for I-refuse-P/Und
'I refused to marry the girl'

3) (Und)kus?on-di (Si)e-ning* (P)garum-t-i?ng
dog-Fo to-me growl-F-me/Und
'The dog will growl at me'

This is understood to be derived from:

(Und)kuso?n-di (T)e-ning gi?-ing sun (P)garum-tu?
dog-Fo to-me see-me when growl-F/Und
'The dog will growl when he sees me'

4) (Und)ming* (Si)e-nom (P)ne-butong-t-o?m
I to-you I-fear-F-you/Und
'I will fear you'

This is understood to be derived from:

(T)e-nom ne-gi?-om du (Und)ming* (P)ne-butong-tu?
to-you I-see-you when I I-fear-F/Und
'When I see you I will be afraid'

5) (T)bio?gi (Und)ming* (PEx)payt'i da-u (P)ne-badu-tu?
tomorrow I work do-Inf I-reluctant-F/Und
'Tomorrow I will feel reluctant to work'

2.7 *Semi-Receptive Clause*.

	± REF	NP,ARNP,ARpro		P	SRec VP
+	Site	animate location	+	Attaching State	relates to Site

Clause Meaning: The Referent receives an attaching (temporary) state.

Periphery: Time, Reason, Manner.

Expanded Formula: ± T ± Rs + Si ± M + P

Sample Verb Stems:

zu?m	'itch'	do?	'feel'
zeng, zieng	'cold'	duku?	'stoop'
biti	'tire'	d'uka	'pain'
asu	'fever'	sit'a?m	'strain, over-exert'
butu, bu?tu	'hunger'		
ada?	'thirst'		

Comments:

i. All the verbs in this clause type take *-u* in their infinitival form.

ii. The Predicate may fluctuate between the *-u* and *-nu?* forms of the verb without any apparent change in the semantic roles of the DPs.

iii. With the possible exception of *duku?* 'stoop,' all the verbs indicate an internal physical state. It may be that *duku?* means something like 'to have backache.'

iv. An Outer Locative cannot occur except by embedding.

(T)udubun (T)zalaput' ne-i? ne-k-ru? du (M)nay mad
yesterday jalaput I-go/Und I-be-P/Und when what much

(P)ada?-r-ing-ay
thirst-P-me-Sp
'Yesterday when I went to Jalaput, I was so thirsty'

v. The verb *do?* 'feel' requires an abstract state noun as complement. Its meaning is 'to feel internally' and though it is not cognate with any other Parengi word it is probably a cognate of the combining form of the Sora word for 'body,' which is *do?ng*. (Sora is the closest related language to Parengi.) In Parengi this verb has been found with the following abstract nouns, all of which (except for the first two listed) may also occur as Receptive or Semi-Receptive verb stems.

bitsar	'thought'	bu?l	'drunk'
niman	'good'	dima?n	'sleep'
butong	'fear'	zu?m	'itch'
guro?y	'shyness'	zeng	'cold'
mile?y	'happiness'	biti	'tiredness'
zigar	'anger'	asu	'fever'
amsi?	'hate'	sita?m	'exhaustion'
mangar	'sorrow'	bu?tu	'hunger'
asa	'belief'	ada?	'thirst'
badu	'reluctance'	tay:u?	'doziness'
		d'uka	'pain'

vi. The Manner Adjunct is restricted to one of degree (e.g., much, less).

Examples:

1) (Si)sio: roza-di etur (P)bu?tu-ru?-ni
lion lord-Fo to hungry-P/Und-Hab
'The lion-king was always hungry'

2) (T)udubun (Si)e-ning* (M)dat'am (P)ada?-r-ing-ay
yesterday to-me much thirst-P-me-Sp
'Yesterday I was very thirsty'

3) (Rs)pensil-nen niman-t'a da?n (Si)e-ning* (PEx)mile?y (P)do?-t-ing
pencil-this good-Nom for to-me happy feel-F-me
'I will feel happy because this pencil is a good one'

Residue: In the examples given below there is a dependent clause with the verb in the infinitival form. The writer is unsure whether to treat the dependent clause as a DP or not. If the dependent clause is a DP then they are Di-Receptive clauses, otherwise they are Semi-Receptive.

1) (?)kunda-n ui-nu? (PEx)butong (P)do?-t-ing
hill-Lk go-Inf/Und fear feel-F-me
'I will feel afraid to go to the hills'

2) (T)bio?gi (?)payt'i da-u (PEx)badu (P)do?-t-ing
tomorrow work do-Inf reluctance feel-F-me
'Tomorrow I will feel reluctant to do work'

The second example should be compared with its synonomous forms, see example 5 Under Group III of the Receptive Clause and this following example:

3) (T)kilnu (?)payt'i da-u (P)badu-n-i?ng lu?-r-ing
now work do-Inf reluctant-Und-me pres.cts.-me
'I am reluctant to do work now'

At this stage of the analysis the writer inclines to treat the dependent clause as a Complement and, therefore, tentatively classifies the examples above as Semi-Receptive clauses.

2.8 Eventive Clause.

	P	Ev VP
+	Action	meterological phenomena

Clause Meaning: A meteorological event.

Periphery: Time, Outer Locative, Reason, Manner

Expanded Formula: ± T ± L ± Rs ± M + P

Sample Verb Stems:

udu?m	'evening, dusk'
tiga?n	'rise, dawn' (daily rising of sun; also of moon)
imbur	'wind'
da? gur	'rain' (lit. water enter)
ayli?	'rise' (monthly appearing of the moon)
ungong	'night, dark'

Comments:

i. All the verbs in this clause type take the -u form.

ii. Reason rarely occurs and the example given below was obtained by elicitation. Manner is restricted to degree.

iii. If the verb stem does not comprise a meteorological noun, then the verb is likely to take a meteorological noun as Complement. The verb tiga?n 'dawn, rise' could be considered as an Intransitive verb, but the range of possible subjects would be restricted to just 'sun' and 'moon.' Because of this strong restriction, the writer chooses to treat 'sun' and 'moon' as Complements.

iv. The verb da? gur 'rain' might also be considered as an impersonal Intransitive verb. However, it differs from the Semi-Transitive verb gur 'enter' in that it does not take a Referent. Also, if 'rain' is considered an impersonal verb it would be restricted to one subject only, da? 'water.' Because of these restrictions the writer prefers to treat this verb as having a Complement and to classify it under Eventive.

Examples:

1) (P)udu?m-ay
evening-Sp
'It became evening'

2) (T)udubun (OLoc)zalaput' (M)abu?n (P)imbur-r-ay
yesterday jalaput much wind-P-Sp
'Yesterday it blew heavily at Jalaput'

3) (Rs)taru?m da? da-r-ay da?n (PEx)da? (P)gur-r-ay
cloud water become-P-Sp for water enter-P-Sp
'It rained because the rain-clouds came'

4) (PEx)anga?yta (P)tiga?n-t-ay
moon rise-F-Sp
'The moon will rise'

2.13 Di-Attributive Clause.

+	S	NP,pro	+	REF	NP,ARNP,ARpro	+	± P	Stative VP
	Und	item		Site	location		State	Und & Si co-exist

Clause Meaning: Subject and Referent exist together or are located together.

Periphery: Time, Reason.

Expanded Formula: $\pm$ T $\pm$ Rs + Und + Si + P

Sample Verb Stems:		
	duku	'be'
	ingka	'not be'

Comments:

i. All the verbs in this clause type take the -nu? form.
ii. A change in the order of occurrence of Subject and Referent does not effect the meaning.
iii. Prefers neutral tense to present continuous.
iv. In the third person of the non-negative neutral tense the predicate (but not the complement) may be optionally deleted.
v. The Di-Attributive clauses may be split into two sub-types—Possessive and Locative. (The Locative sub-type also has an Existive sub-type of its own.)

The general differences between the Possessive and Locative sub-types are the preferred order of occurrence of the Subject and Referent tagmemes, and the different shades of meaning given by the Predicate (though both sub-types have the general meaning of the co-location of the Undergoer and the Site).

2.131 Possessive.

Comments:

i. The usual order of the tagmemes is Referent-Subject-Predicate, though the Referent and Subject may occur in the reverse order.
ii. The Subject slot is rarely filled by a pronoun.

iii. The Referent is usually animate, though inanimate Referents may also occur. In both cases the Referent is marked etur. When the Referent is inanimate, the Undergoer is an integral part of the Referent. (See examples 2 and 4.)

iv. The Predicate has the meaning of 'possession' and is translated into English by the word 'have.'

Examples:

1) (Si)e-ning (Und)a?sung (P)duk-i?ng
to-me house be-me/Und
'I have a house'

2) (Si)a?sung etur (Und)alang (P)duku?
house to thatch be/Und
'The house has thatch'

3) (Si)puzari-n etur (Und)bo?y ango?n (P)duku?
puzari-Lk to one son be/Und
'Puzari has a son'

4) (Si)put'put'i etur (Und)kol (P)duku?
motor-bike to engine be/Und
'The motor-bike has an engine'

5) (Si)e-no?m (Und)zieng (P)ingko?
to-him cold not be/Und
'He is not cold' ('He does not have coldness')

6) (Si)areng ± etur (Und)zibon (P)ingko?
stone to life not be/Und
'Stone does not have life'

7) (Si)e-ning (Und)tang-dey-nu? payt'i (P)duk-i?ng
to-me pound-cook-Inf/Und work be-me/Und
'I have rice-preparing work'

8) (Und)mang* (Si)e-ning (PEx)saka (P)mo-k-i?ng
you to-me brother you-be-me/Und
'You are (like) a brother to me'

9) (Rs)kundem deray ne-ong-u da?n (Si)e-ning* (Und)abu?n dabu
rice millet I-sell-P for to-me much money

(P)duk-i?ng
be-me/Und
'I have much money because I sold rice and millet'

2.132 Locative.

Comments:

i. The usual order of tagmemes is Subject-Referent-Predicate, though the Subject and Referent may occur in the reverse order.
ii. The Referent is inanimate and unmarked.
iii. The Predicate has the meaning of 'geographical location.'
iv. There is an Existive sub-type of this clause.

Examples:

1) (Und)ming (Si)a?sung (P)ne-k-u?
I house I-be-Und
'I am in the house'

2) (Und)no?n (Si)a?sung (P)ingko?
he house not be/Und
'He is not in the house'

3) (Si)biel (Und)bo?y lu?ng (P)duk-ru?
field one hole be-P/Und
'There was a hole in the field'

4) (Und)ar'i da?u (Si)reil t'eson o?tur (PEx)pa:c mail sanga?y
that village rail station from five mile distant
(P)duku?
be/Und
'That village is five miles from the railway station'

2.1321 Locative-Existive.

Under certain conditions the Referent does not occur. This is when the location is not known to the speaker and could have been anywhere, but it is understood that there was a location. This typically occurs as the opening sentence of a folk story and gives the 'setting' for the story. Therefore it is classified here as a discourse-conditioned variant of the Di-Attributive (Locative) Clause.

In this Existive sub-type, the Predicate is optionally deletable. Also, the verb is in the simple past tense and negates with the negative of duku 'be' rather than the negative verb ingka 'not be.'

Examples:

1) (Und)bo?y kunda bo?y (P)duk-ru?
one hill one be-P/Und
'There was a certain hill'

```
2)  (Und)bo?y mod'u sun-u   lok  bo?y (P) ± duk-ru?
          one  mod'u say-Inf folk one         be-P/Und
          'There was a certain person called Modu'

3)  (Und)bo?y lok  (P)ar-ku-n-e?y
          one  folk   Neg-be-Und-they
          'There was not one person'  (or 'Not one of them stayed')
```

2.14 Attributive Clause.

```
   S  ¦ NP,pro,DepCl      P    ¦ Stative VP
+ ----+-------------- +/- -----+------------------
  Und ¦  item            State ¦ relates to Und
```

Clause Meaning: Ascription, attribution, or identification of Subject.

Periphery: Time, Reason.

Expanded Formula: ± T ± Rs + Und + P

Verb Stems:		
	duku	'be'
	ingka	'not be'

Comments:

i. All the verbs in this clause type take the -nu? form.

ii. The Predicate requires Complement.

iii. The Attributive Clause with an Adjectival Complement may be called the Descriptive sub-type, and the one with a Nominal Complement the Equative sub-type. These two sub-types might be sufficiently different to be contrastive clause types, but the evidence available at present is not conclusive. The two sub-types will be described separately below.

2.141 Descriptive-Attributive.

Comments:

i. The Complement is filled by an Adjectival Phrase.

ii. The Subject is the Attribuand (described item) in an Ascription.

iii. The Predicate is conditioned in its occurrence. If the State is a stable unalterable one, then the Predicate will not occur.

iv. It commonly takes the neutral tense rather than the present continuous, though the latter may be used to refer to something that continues for some time but is likely to change (e.g. 'Daily Boldram is being good').

v. There is some doubt as to whether the occurrence of ingka in this clause type is legitimate. Very often the clause is negated with the negative of da 'become'--which would then be a Receptive clause. Only two examples of a negative Descriptive clause are found in the writer's data.

(T)mita?n (Und)baing (PEx)niman (P)ingko?
today youPl good not be
'Today you are not good'

(Und)tarbulda?n-nu lok (PEx)niman (P)ingko?
talabireda-Aj folk good not be
'The Talabireda folk are not good'

Examples:

1) (Und)ar'i lok-di (PEx)ra? lu?kun (P)duku?
that folk-Fo elephant like be/Und
'That person is like an elephant'

2) (Und)ming* (PEx)d'os kedzi lagun (P)ne-ku?
I ten k.g. heavy I-be/Und
'I weigh ten k.g.'

3) (Und)imbur* (PEx)balbal (P)duku?
wind hot be/Und
'It (the air) is hot'

4) (T)d'os anum aki (Und)ar'i ara? (PEx)deli? (P)duk-ru?
ten year below that tree small be-P/Und
'Ten years ago that tree was small'

5) (Und)ar'i dam (Rs)abu?n da? a?b-d'ar-u da?n (PEx)lu?p (P)duku?
that dam much water C-grasp-Inf for big be/Und
'That dam is big so as to hold back much water'

6) (Und)bubong digin aba-nu sama d'ar-u (PEx)niman
baby Cl father-Aj story grasp-Inf good
'It is good that children keep their father's words'
(Notice that there is no Predicate; see Comment iii above).

2.142 Equative-Attributive.

Comments:

i. There is no Predicate; but see Comment iii under 14.1.

ii. Negates with the negative of da 'become' and not with ingka 'not be.'

iii. The Complement is filled by a Nominal Phrase.

iv. The Subject is a specific item and the Complement is a generic item.

v. The periphery is very restricted. Time cannot occur because, without a Predicate, the clause is timeless. Reason has not been found, though that is not to say that it couldn't possibly occur. The last example given below appears to be a comparative form of the Equative and incorporates an Outer Locative. It constitutes a residual variant of clause which needs further investigation.

Examples:

1) (Und)en (PEx)t'ebul
that thing table
'That is a table'

2) (Und)no?n-nu mol (PEx)iag t'anka
he-Aj price three rupee
'Its price is three rupees'

3) (Und)ar'i no?n (PEx)ming-nu-t'a
that he I-Aj-Nom
'That item is mine'

4) (Und)mahanadi (OLoc)or'isa-nu sobu kinda? ba? o?tur (PEx)lup
mahanadi orissa-Aj all river place from big

kinda?
river
'The Mahanadi is the biggest of all the rivers of Orissa'

C. Inflected Patterns (Node-Invariant Derivations).

Foreword. The preceding section has dealt with the basic simple clause types in the Indicative Active/Stative Independent frame of reference. Other simple clause types may be derived from them. Such a derived clause might fall under the same terminal node or under a different terminal node on the Hale chart when comparedwith the terminal node of the basic clause. The derived clauses that remian under the same node on the chart will be considered in this section on 'Inflected Patterns.' Those derived clauses that are re-located on the chart will be considered in Section D on 'Derived Patterns.'

1. The Tense-Aspect System.

1.1 Tense-Aspect.

The verb itself is marked for past tense (-ru, -r-) or future tense (-tu, -t-). If neither of these occur, then the tense is neutral. This unmarked neutral tense occurs with the infinitive, negative, and present continuous forms of all verbs and with the present tense of the state verbs. The continuance of the action is shown by the auxiliary verb lu?(n) or by the word olku. The duration of the effect of an action is shown by the auxiliary verbs duku 'be' (see also Section D.4.1 on 'Stativisation'), and ku?n 'temporary state.'

The following table shows the normal range of tenses.

Time	Aspect	Label	Example da 'do'	Gloss
	Punctiliar			
Past -ru*	–	Past Aor	da-ru	'He did'
Neut #	–	Present, Timeless, or Neg.	or-da	'He will not do'
Fut -tu	–	Fut Aor	da-tu	'He will do'
	State			
Past -ru	Past duku-ru**	Past Perf	da-ru duk-ru?	'He had done'
Past -ru	Neut duku-? ku?n	Pres Perf	da-ru duku-?	'He has done'
Fut -tu	Fut duku-tu?	Fut Perf	da-tu duk-tu?	'He will have done'
	Continuous			
Past -ru	olku	Past Cts	da-ru olku	'He was doing'
Neut #	lu?(n)-ru***	Pres Cts	da-u lu?-ru	'He is doing'
Fut -tu	olku	Fut Cts	da-tu olku	'He will be doing'

Figure 5. The Tense-Aspect System

*Sometimes the r of the past tense affix is obscured by the following morpho-phonemic changes when the verb stems end with certain consonants:

m + ru --> mmu
ng + ru --> ngngu
l + ru --> llu
n + ru --> rru, ndru

i + ru --> i
y + ru --> y
y: + ru --> y:

**When the verb duku carries a person (subject) prefix, then the verb stem is shortened to k.

ne-da-ru ne-k-ru?
I-do-P I-Aux-P/Und
'I had done'

***The n is overtly present in the negative or other uninflected forms, but elsewhere the n obligatorily takes its zero allophone ∅. Also, when this auxiliary verb carries a person (subject) prefix then the verb stem is normally shortened to ?.

da-u mo-?∅-ru = = => da-u mo-r-lu?n
do-Inf you-Aux-P do-Inf you-Neg-Aux
'You are doing' 'You are not doing'

In my data there is only one example of ku?n- as an auxiliary verb, where it indicates that the affect of the action was temporary. In this example it occurs in the neutral tense.

(OLoc)indi basa-n (P)le-reng-u le-ku?n-u
this base-Lk we-leave-P we-Aux-Neut
'We temporarily leave (our stuff) at this base'

1.2 Habitual-Aspect.

The writer is unsure as to the precise meaning of the verbal suffix -ni. It occurs as the last of the series of verbal suffixes. Tentatively two meanings have been postulated for -ni:

i. Habitual action

ii. Another form of Speaker Orientation (see Section C.2.1) in which the speaker is referring to an action which is taking place at a very remote distance from him, so that he can neither see nor hear it nor quickly verify it.

The examples that are available at present split into two groups. Those that add -ni to a normal past (or future) tense, the clause remaining independent; and those that add -ni to the infinitival form of the verb and do not carry tense—the resulting clause being a dependent one.

Examples: Set A

(Und)tsit'i (P)sa?-ay ne?r-ay = = =>
paper tear-Sp/Inf I-pres cts-Sp
'I am tearing paper' (said to a close, unseen questioner; e.g., on the other side of the door)

(Und)tsit'i (P)ne-sa?-r-ay-ni
paper I-tear-P-Sp-?
'I am tearing paper' (said to a distant, unseen questioner)

(Und)no?n (Si)a?sung o?tur (P)ui?-nu? lu?ru = = =>
he house from go-Inf/Und pres cts
'He is going from the house'

(Und)no?n (Si)a?sung o?tur (P)ui?-ni
he house from go/P/Und-?
'He is going from the house' (as usual; as he did yesterday and will do tomorrow)

Set B (Infinitive + ni)

(Und)ar'i gar'i (P)ui-nu?-ni // (P)tinang-u
that bus go-Inf/Und stand-P
'That bus went and stopped'

(Si)iskul o?tur (P)o?bay-ni // (Und)tangk (P)ga?-ru
school from come-? rice eat-P
'Coming from school, I ate rice'

Comments:

Set A has independent clauses, and the verb is declined for person and tense. It suggests an action that is begun in the past and is still in progress, and that this is an habitual action.

Set B has dependent clauses, and the verb is not declined for person or tense. It suggests that one action was on its way and it gave way to another action.

1.3 Negation.

The negative aspect is shown for the Event clauses by the prefixes ar-, or- on the verb stem. The negated verb is inflected for person but not for tense, though then tense may be known to some extent by the choice of negative prefix (ar- indicates past; or- indicates non-past) and by any modal auxiliaries that occur. Though the verb is not suffixed for tense (-tu 'future', -ru 'past'), it is suffixed by the infinitival markers -u, -nu? (the -nu? form indicating, as usual, that Subject is the Undergoer).

Examples:

(Und)no?n (P)bu?l-(l)u? duku?
he drunk-P/Und be/Und
'He is drunk'

= = =>

(Und)no?n (P)ar-bul-nu?
he Neg-drunk-Und

ar-ku-(nu?)
Neg-be-(Und)
'He is not drunk'

(Und)ar'i a?sung (P)gi-n-a?y
that house see-Und-Sp

lu?-r-ay
pres cts-Sp
'That house is being seen'

= = =>

(Und)ar'i a?sung (P)gi-n-a?y
that house see-Und-Sp

ar-lu?n
Neg-pres cts
'That house is not being seen'

(It could be seen, but the
person is not wanting to
look that way.)

(Si)at'-un (P)ne-i?	= = =>	(Si)at'-un (P)ne-*r*-ui-(nu?)
market-to I-go/P/Und		market-to I-Neg-go-Und
'I went to market'		'I did/will not go'

The word *ar-lang* means 'not yet.' It occurs in the infinitival form with referent agreement, but without subject agreement.

(Agt)bar-bo?y lok (P)*ar-lang* o?bay
again-one folk not yet come/Inf
'Someone else has not yet come'

(Agt)ming (Und)on-ek (P)zum-u *ar-lang*
I anna-one eat-Inf not yet
'I have not yet consumed (i.e., spent) one anna'

(Und)a?sung (P)gi-n-ay *ar-lang*
house see-Und-Sp not yet
'The house has not yet been seen'

The Attributive and Di-attributive clauses (having *duku-nu?* 'to be') are unusual in that they are not normally negated by *ar-* or *or-*, but they have a special negative state verb, *ingka-nu?* 'to not be.' Examples have already been given in Section B.2.13 and 14. Imperatives may be negated as regular verbs, or they may carry the pre-verb *ambu* 'don't.'

(P)*ambu* alam	(P)*or*-alam
don't touch	Neg-touch
'Don't touch'	'Don't touch'

2. *Mode*.

2.1 Speaker Orientation.

There is a verbal affix *-ay* which indicates something of the relation between the action and the speaker and treats the speaker as a secondary Referent. It seems to carry three or four meanings:

Remoteness. The action occurs in a different place than where the speaker is. It may also apply to remoteness in time.

(Agt)no?n (Und)o?an (P)la?-tu	= = =>	(Agt)no?n (Und)o?an (P)la?-t-*ay*
he dance hit-F		he dance hit-F-Sp
'He will dance (somewhere)'		'He will do a dance (over there)

(P)sun-ru ===> (P)sun-r-ay
say-P say-P-Sp
'He said' 'He said (a long time ago)'
(occurs in folk-tales)

(C?)gotia-nen (Agt)ingay kurong-nu pori?n (P)ye?-r-ay
visitor-this which path-Aj bird cry-P-Sp
'The birds of which area cry out (remote) because of this visitor?'
(A figurative expression asking where a stranger is from.)

Direction towards the speaker. This applies to directed motion verbs. This may be part of the meaning of the previous section, as the source of the directed motion is 'remote.'

(P)le-d'on-tu ===> (P)le-d'on-t-ay
we-take-F we-take-F-Sp
'We will take' 'We will bring'

Urgency. This occurs with the first person of the Hortatory paradigm. It seems to indicate that the subject must do the action immediately or it will be too late. (See also Section C.2.2 Imperative-Hortatory.)

(Und)ming (P)ne-i-tu? ===> (Und)ming (P)ui-t-a?y
I I-go-F/Und I go-F-Sp/Und
'I will go' 'I must go (now)'

Speaker is the Referent. Often this suffix appears in conjunction with, or even in place of, a Referent which is in the first person singular.

(PEx)guro?y (P)do?-r-ing ===> (PEx)guro?y (P)do?-r-ing-ay
shy feel-P-me shy feel-P-me-Sp
'I felt shy' 'I felt shy'

(Agt)saybu-di (P)zel-ing ===> (Agt)saybu-di (P)zel-ing-ay
master-Fo tell-me master-Fo tell-me-Sp
'The master told me' 'The master told me'

2.2 Imperative-Hortatory.

The Imperative is part of the Hortatory paradigm. This Hortatory paradigm is the only place in the Parengi language which distinguishes between Inclusive and Exclusive forms, and which also has dual number as well as plural number. Dual number is restricted to first person only.

The *-u*, Subject as Agent, verbs give the basic shape to this paradigm. Given the -u form, then the -nu? (Subject as Undergoer) and -ay (Speaker Orientation) suffixes are added in a mechanical fashion to the paradigm.

Inclusive (of addressee) forms

Person	-u	-nu?	-ay	-nu? & -ay	Comments
Sg 1	-	-	-	-	Cannot occur
2	-Ø	-na?	-ay	-n-a?y	Ø= no affix; No subject concord
3	-e-tu	-ne?-tu	-ay-tu	-n-a?y-tu	Subject concord (Ø)
Dl 1	-u	-nu?	-ay	-n-a?y	Subject concord (le-)
2,3	-	-	-	-	Does not occur
Pl 1	-bu	-nu?-bu	-ay-bu	-n-a?y-bu	Subject concord (le-)
2	-ab(u)	-n-ab(u)	-(ay)-bu	-n-a?y-bu	No subject concord
3	-e-t-ey	-ne?-t-ey	-ay-t-ey	-n-a?y-t-ey	Subject concord (-ey)

Figure 6. Hortatory Paradigm.

(The third person forms take -tu, -t- the future tense marker)

Examples:

1) (P)duk-ne?-tu
be-Und/Impv-F
'Let it stay'

2) (Si)e-ning (P)tay-ing
to-me give-me
'You (s) give it to me (for me)'

3) (Und)indi kumda (Si)e-no?n (P)le-ta?y-bu
this pumpkin to-him we-give-Impv
'Let us give him this pumpkin'

4) (P)le-i
we-go
'Let us (dual) go'

5) (P)tay-ing-bu-nu?
give-me-Pl/Impv-Und
'Let you (pl) give to me and vice-versa'
(This is the Imperative form of a reciprocal action)

6) (P)ye?
cry
'Cry!'

7) (P)gon-na?
lie-Und
'Lie down!'

8)	(P)dima?n	(P)dima?n-na?
	sleep	sleep-Und
	'Sleep!'	'Sleep!'

9)	(P)d'on	(P)d'on-na?	(P)d'on-ay
	take	take-Und	take-Sp
	'Take it!'	'Take it (for yourself!' (i.e., Benefactive)	'Bring it!'

Exclusive (of addressee) forms. This is the 'urgency' form which is also alluded to under 'Speaker Orientation' (Section C.2.4) as it always occurs with the affix -ay. These forms are found in the first person singular and plural, but in the former case there is no subject concord.

(Und)ming	(P)ne-i-tu?	===>	(Und)ming	(P)ui-t-a?y
I	I-go-F/Und		I	go-F-Sp/Und
'I will go (sometime)'			'I must go (now)'	

(Und)bileng	(P)le-i-tu?	===>	(Und)bileng	(P)le-i-t-a?y
we	we-go-F/Und		we	we-go-F-Sp/Und
'We (excl?) will go'			'We (excl?) must go'	

(bileng and le- 'we' are not necessarily exclusive pronouns but they are often considered so, as the speaker has the option of choosing the inclusive form if he wishes.)

(Agt)ming*	(P)ne-gi?-tu	===>	(Agt)ming*	(P)gi?-t-ay
I	I-see-F		I	see-F-Sp
'I will see it'			'I must see it'	

Residue. Consider the following paradigm:

(Und)ming (P)gon-t-a?y
I lie down-F-Sp/Und
'I must lie down'

(Und)mang (P)gon-na?-t-ay
you lie down-Und/Impv-F-Sp/Und
'You must lie down'

(Und)no?n (P)gon-ne?-tu
he lie down-Und/Impv-F
'He must lie down'

The first is an example of the 'Urgency' type and the third fits the normal Hortatory paradigm, but it is not clear where the second belongs. (The above paradigm occurs with *da?y-* 'climb,' *zel-* 'tell,' and so is probably a regular one.)

Imperative-Hortatory with long range effects. This paradigm indicates that when the action or state is completed, which will be in the very near future, then its effects will continue with the Referent indefinitely.

The construction of the verb phrase is peculiar in that the Referent is obligatorily incorporated after the infinitival form of the verb stem and before the tense marker, but is only optionally incorporated in its normal place after the tense marker.

This form is particularly appropriate in uttering curses!

(Si)e-nom (Und)kude mat'i (P)ingka?-nom-tu?
to-you wall earth not-be-you-F/Und
'May you not have walls and earth!'

(Agt)tile?y-di (PEx)ne? (P)zel-om tay-om-t-o?m dom
old man-Fo it tell-you Aux-you-F-you/Und must
'It's the old man, let him tell you'

2.3 Subjunctive.

There is an infix *-y-* that can occur between the subject pronominal prefix and the verb stem. It seems to indicate an event whose possible occurrence is dependent upon an uncertain issue (such as an hypothesis).

(Si)tite? (P)ne-*y*-ku? ki, (P)ne-y-ting (P)ne-y-ting dom
there I-Sbj-be/Und or I-Sbj-shoot I-Sbj-hit must
'Should I have stayed there,I would definitely have shot it hard'

(T)agay ki (Agt)ming (P)ne-*y*-da
when Q I I-Sbj-do
'When should I do it?'

2.4 Modal Auxiliaries.

The following main verbs may also be used by the speaker as auxiliary verbs to indicate something more of what he assesses the subject's frame of mind to be.

The modal auxiliaries under discussion here are:

	Main Verb	Auxiliary Verb
ta?y	'to give'	deliberate action
ui	'to go'	non-deliberate action, unvolitional
ua?y	'to come'	as ui above (directional derivation of 'go')
pu?n	'to bloom'	an action moving outwards from a center
la?	'to hit'	vigorous action
ku?n	'to sit a child on one's hip'	temporary action

There are two other auxiliaries: duku (indicating state) and lu?n (indicating present continuous), but these will be dealt with under 'Tense' (See Sections C.1.1 and D.4.1).

1) (Agt)ming* (Si)baing a?sung (P)ne-gur-r-ay ne-ta?y-ay
I youPl house I-enter-P-Sp I-Aux-Sp
'I deliberately entered your house'

2) (T)kula ne-gi? sun (Und)ming* (P)ne-butong-tu? ne-i-tu?
tiger I-see when I I-fear-F/Und I-Aux-F/Und
'When I see the tiger I will become afraid'

3) (Und)ara?-di (P)liga?n-t-a?y ua?-t-ay
tree-Fo break-F-Sp/Und Aux-F-Sp
'The tree will break (towards me)'

4) (Und)no?n (P)turia? pu?n-nu? lu?ru
he kick Aux-Inf/Und pres cts
'He is kicking his leg'

(It may be that turia? should be considered a Manner Adjunct, but there is insufficient data to make a judgement.)

5) (Agt)ming* (P)ne-ga?-ru ne-la?-ru
I I-eat-P I-Aux-P
'I ate vigorously'

6) (OLoc)indi basa-n (P)le-reng-u le-ku?n-u
this base-Lk we-leave-P we-Aux-Neut
'We temporarily leave (our stuff) at the base'

A Note of Caution:

In reading Parengi text one must be careful when one of these verbs is found as the second of a verbal pair. The second verb could be a modal auxiliary, or it could be an independent verb which is not part of the same predicate as the first verb, or it could be forming a complex predicate. This situation commonly arises with the verbs give and go.

The tests for deciding that a second verb is not a modal auxiliary are:

i. Is another tagmeme introduced—one that the first verb does not usually take? For example:

ta?y	'give'	as a main verb can introduce a benefactive Referent slot.
ui	'go'	as a main verb can introduce a locative goal (or source).

ii. Can the two verbs be separated by a conjunction or a clause-relator term? If so, the second verb is not an auxiliary verb.

In some cases there is ambiguity, and the context must be considered as to which interpretation is more likely.

Examples of non-auxiliary second verbs:

(Agt)mang (Und'bo?y tsit'i (Si)e-ning (P)mo-ol-t-ing (P)mo-ta?y-t-ing
you one letter to-me you-write-F-me you-give-F-me
'You will write a letter and you will give it to me'

The above is an example of a complex clause. This paper is only treating simple clauses.

(Agt)ming* (Und)ming-nu pensil (Si)e-nom (P)ne-ong-t-om
I I-Aj pencil to-you I-sell-F-you

(P)ne-ta?y-t-om
I-give-F-you
'I will sell my pencil to you'

(Agt)bubong-di (Und)kat'i (P)kabdu?-ru ± du (P)ui?
baby-F knife disappear/C-P Cj go/P/Und
'The baby caused the knife to disappear and then he went'

compare: (Agt)bubong-di (P)kadu?-ru ui?
baby-Fo disappear-P/Und go/P/Und
'The baby just disappeared'

In the latter clause 'go' is an auxiliary verb showing non-intentional action. The conjunction du cannot occur.

3. Voice.

3.1 The Undergoer Function.

In Section B of this paper it was shown that when the subject of the verb was the Undergoer—as in the Di-Receptive, Receptive, Di-Attributive, and Attributive clauses—then the verb was marked by -nu?. In the other clause types, in which the Subject was the Agent or there was no Subject, the verb was marked by -u.

This same -nu? marker may be applied as a derivation to the Transitive group of clauses. If the Agent still remains the Subject of the clause, then the derivation is node invariant and the meaning is Reflexive, Reciprocal, Benefactive, or Capabilitive. These inflectional derivations will be considered below. However, if the Agent is no longer the Subject of the clause, then the Undergoer—which was the Object of the basic Transitive clause--becomes the Subject of the derived clause. This derived clause is Passive (or Potential) voice and will then fall under the Receptive (or Di-Receptive) node on the Hale chart. This Passive derivation will be described in Section D.1.

The reader is reminded that the -nu? affix has various allomorphs in which the n or u or both may be lost, but the glottal will always be present.

3.11 Reflexive.

This is derived from a Transitive clause by marking the verb -nu? and the Object slot is then not overtly filled unless the Object is part of the Subject (e.g., a body part). The Subject then has the combined roles of Agent and Undergoer. (The Hale chart does not allow for combined roles, but if we choose to consider there to be two underlying DP's, then it will still fall under the Transitive node).

(P)ne-la-t-om = = => (P)ne-la?-tu?
I-hit-F-you I-hit-P/Und
'I will hit you' 'I will hit myself

(Agt)ming' (Und)si?-doy (P)ne-po?-tu = = => (Agt, Und)ming' (Und)si?-ning
I arm-his I-stab-F I arm-my
'I will stab his arm'

(P)ne-po?-tu?
I-stab-F/Und
'I will stab my arm'

3.12 Reciprocal.

This is derived from the Transitive or Di-Transitive clauses by the adding of -nu? to the verb indicating that the Subject is also

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349

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undergoing the action. This is parallel to the Reflexive, in that the Subject is both Agent and Undergoer, but different in that there is not just one Agent operating on himself, but there are two Agents, each one operating on the other. It is common for the action to be intensified by reduplicating the verb stem.

(Agt)bileng (Und)dabu (P)le-ta?y = = =>
we money we-give/P
'We give (someone) some money'

(Agt, Und)bileng (Und)dabu (P)le-ta?y-ta?y-?
we money we-give-give-P/Und
'We gave money to each other'

3.13 Benefactive.

The Benefactive is derived from the Transitive or Di-transitive clauses by merely marking the verb by -nu?. It then indicates that the subject benefits himself by the action. Only the Subject is affected by this derivation—all the other DP's remain as they were. This then gives rise to two different Undergoers in the clause, as happened in the Reciprocal type. The Object is still the Undergoer of the verb, but the Subject, as well as being Agent, is also an undergoer in the sense that he is changed (but indirectly) by the action. The change may be in his status, or personal possessions, or something like that. It may be that the Subject has the combined roles of Agent and Referent (for Referent may be thought of as a secondary undergoer).

There are other ways of specifying a benefactor who is not the Subject of the clause. The most common is to have a compound clause in which ta?y 'to give' is collocated with the basic verb. This adds another slot to the clause, namely, Referent as Benefactor.

(Agt)no?n (Und)adia-kur (P)tay:-u lu:ru = = =>
she waist-cloth weave-Inf pres cts
'She is weaving a waist-cloth (for anyone)'

(Agt, Und)no?n (Und)adia-kur (P)tay:-nu? lu?ru
she waist-cloth weave-Inf/Und pres cts
'She is weaving a waist-cloth (for herself)'

(Agt)ming* (Und)indi areng (Si)e-nom* (P)la?mang-om
I this stone to-you reach out-you/Inf

ne-?r-om = = =>
I-pres cts-you
'I am holding out this stone to you'

(Agt, Und)ming* (Und)ar'i areng (Si)e-nom* (P)la?mang-n-o?m
I that stone to-you reach out-Und-you/Inf

ne-?r-om
I-pres cts-you
'I am reaching out to you for that stone'

3.14 Capabilitive.

This is an instance in which a -nu? variant of an Intransitive clause is found. It is akin to a 'reflexive' in that one might say, "The baby is walking herself," except there was no object in the underived clause. It is also akin to the 'potential' (a node variant derivation) in that one might say, "The baby can walk." In the case of the verb 'walk,' this -nu? derivation applies to an acquired skill. It seems to indicate that the Subject has the potential for acquiring a skill, whereas the verb gangi? 'to be able' assumes that the skill is already known (e.g., a man with a broken leg knows how to walk, but he is not able—gangi?--to do so at the present time).

(Agt)bubong-di (P)or'ing-u lu?ru = = = >
baby-Po walk-Inf pres cts
'The baby is walking'

(Agt, Und)bubong-di (P)or'ing-nu? lu?ru
baby-Po walk-Inf/Und pres cts
'The baby is trying to walk but fails'

Consider also the following Question and Answer:

Q. (Agt)bubong-di (P)or'ing-u-ni ki arlang = = = >
baby-Po walk-P-Hab or not yet
'Is the baby habitually walking or not yet?'

A. (P)ingku? (P)or-or'ing-nu?
no Neg-walk-Und
'No, he is not (capable of) walking'

3.15 Residue.

turya? 'to kick' is a transitive verb and typically functions as other transitive verbs do in a Transitive clause.

(Agt)no?n (Und)balt'i (P)turya?-u lu?ru
he bucket kick-Inf pres cts
'He is kicking the bucket'

But compare:

(Agt, Und)no?n (P)turya?-nu? lu?ru
he kick-Inf/Und pres cts
'He is kicking'

The meaning in the specific instance given above was not the reflexive form, 'He is kicking himself.' It is said when the person is performing the kicking action and there is no object at all (e.g., a person is sitting on a table and swinging his legs; or of a child who is kicking in anger).

This example does not fit neatly under Reflexive, Reciprocal (unless perchance, the speaker is thinking of the one leg moving in the opposite direction to the other), or Capabilitive. In fact, as it is a pure motion (kinematic), it would fit very neatly under the Receptive node. That would imply that the Subject is only an Undergoer, and that either there was no Agent involved or the Agent was deleted. It is difficult to see how this is derived from any transitive verb. That being so, the verb turya?-nu? 'to swing the legs' may well be basic to Receptive. (The example given is certainly not passive, and the passive derived clauses cannot take the present continuous tense either.) This has strong implications for the border line cases discussed under the Receptive clause.

4. Possessed Item Agreement.

In some cases the verb phrase appears to take Referent agreement even when the Referent slot cannot be overtly filled. This agreement is not obligatory, and occurs when the preceding DP is an intimately possessed item (i.e., a possessable item actually in the possession of the owner), in which case there is a mock agreement between the Referent and the possessor. This feature has a strong parallel in English. e.g., In 'My finger is hurting me,' the word 'me' is redundant, is not obligatory, and is there only by agreement with the Subject which is a possessed item.

With a Transitive Clause:

(Agt)ming (Und)pensil-(nom) (P)ne-gi?-t-om
I pencil-your I-see-F-you
'I will see your pencil'

(Agt)mang* (Und)ming-nu pensil P)mo-ra?m-t-ing
you I-Aj pencil you-snatch-F-me
'You will snatch my pencil (off me)'

With an Intransitive Clause:

(Agt)put'put'i-nom (P)ir-om lu?r-om
heart-your jump-you pres cts-you
'Your heart is beating (you)'

(Agt)zibon-ning (P)ye?-r-ing-ay
life-my cry out-P-me-Sp
'My soul cried out from inside me'

D. Derived Patterns (Node Variant Derivations).

1. Deletion of a DP.

The Undergoer Function--Passive Derivation. The Undergoer Function, already mentioned in Section C.3.1, may be used to convert the Object of an active Transitive or Di-transitive clause into the Subject of a passive clause which will then fall under the Receptive or Di-Receptive node on the Hale chart. The Agent of the underived clause is, in most cases, deleted from the frame of reference. It is this passive Undergoer-focussed form which is used when the speaker does not know who the Agent was, but he knows that an object has been effected by some force.

The Subject of the passive derived clause is always the Undergoer and the verb is therefore marked with the *-nu?* affix. The reader is reminded that this *-nu?* affix has various allomorphs in which the *n* or *u* or both may be lost, but the glottal will always be present.

However, this passive derivation is not applicable to all Transitive or Di-transitive clauses; it depends on the degree to which the Object (Undergoer) is affected. The Transitive clauses are consequently sub-classified into the three types below. 'Affected' indicates that the Object--if it were animate--would know that it had been operated on, but it would be *unchanged* in state or position. 'Effected' indicates that the Object underwent a *change* in state or position, this change usually being a visible one.

Type I - the object is effected
'coil,' 'swallow,' 'open'
Type II - the object is unaffected
'see,' 'recognize'
Type III - the object is affected, but not effected
'hit,' 'shoot,' 'burn (spice)'

Type I comprises clauses in which the Object is effected. In these cases the Undergoer derivation which transforms the clause from an active Transitive (or Di-transitive) type to a passive Receptive type is applicable. The Agent is deleted from the frame of reference either because the Agent is not known to the speaker or the Agent could be anyone.

When the Agent is not known, the Predicate often takes the auxiliary verb *ui* 'go' indicating unintentional action. This is particularly so in the past and future tenses. I have chosen to refer to this passive derivation with the auxiliary verb *ui*, as the 'Real Passive.'

When the Agent could be anybody (including the speaker) then the derived clause may take on a 'Potential' meaning (especially with the negative or in the future tense). This potential flavour is particularly noticed following a dependent clause ending with *nen zi?* 'although.' (See also Section E.)

(Agt)no?n (Und)muiri (P)pe?n-u lu?ru
he muiri blow-Inf pres cts
'He is blowing a muiri'

Compare: (Und)muiri (P)pe?n-*nu?* lu?ru
muiri blow-Inf/Und pres cts
'A muiri (reed instrument) is being blown' (by someone the speaker cannot see)

(T)taras la?-r-ay sun, (Und)ma?n-ning (P)pongi?n-tu?
light strike-P-Sp when eye-my extinguish-P/Und
'When the light strikes me, my eyes will be blinded'

Compare: (Agt)no?n (Und)kudong (P)pongi?n-tu
he fire extinguish-P
'He will put out the fire'

(Agt)no?n (Und)ar'i payt'i (P)di?-ru
he that work finish-P
'He finished that work'

Compare: (Und)ar'i payt'i (P)di?-ru*?* ui?
that work finish-P/Und go/P/Und
'That work was finished'

(Agt)no?n (Und)ar'i t'ablet' (P)lu?m-tu = = = >
he that tablet swallow-P
'He will swallow that tablet'

(Und)ar'i t'ablet' (P)lu?m-tu*?* = = = >
that tablet swallow-P/Und
'That tablet will/can be swallowed'

(Und)ar'i t'ablet' (P)or-lu?m-*nu?*
that tablet Neg-swallow-Und
'That tablet will/can not be swallowed'

The only examples yet found of a passive derivation from Ditransitive verbs are with *sun* 'say,' and *a?y* 'splash':

(P)sun-ru?
say-P/Und
'It was said' (This occurs at the end of a story, where the Subject is the story itself.)

(Und)da? (P)ay-? ui?
water splash-P/Und go/P/Und
'The water was splashed (away)'

Type II comprises clauses in which the Object, even though it is the Undergoer, is completely unaffected by the action. As yet, only two verbs have been found in clauses of this type, namely, *gi?* 'to see' and *sama?n* 'to recognize.' In these cases the object would be entirely unaware that it was undergoing any action.

When the Passive derivation is applied to these clauses, the Undergoer is made the Subject, and if there is a specific Agent, it is not deleted but becomes the Referent. The resulting clause then falls under the Di-Receptive node. In this Passive derivation, if the Agent were not specified, then it could be anyone (including the speaker) and the clause again takes on a Potential meaning (especially in the present continuous and future tenses).

(Ag)ming (Und)ar'i poti (P)ne-sama?n-ru
I that book I-recognize-P
'I recognized that book'

Compare: (T)en ne-sama?n-ru zi? (P)ar-sama?n-n-i?ng
that I-recognize-P when Neg-recognize-Und-me
'When I tried to recognize that thing, it was not recognized by me'

(Und)en (P)ne-sama?n-ru zi?, ar-sama?n-n-i?ng
that I-recognize-P when Neg-recognize-Und-me
'When I tried to recognize that thing, it was not recognized by me'

(Agt)mang (Und)pensil (P)gi?-ru
you pencil see-P
'You saw the pencil'

Compare: (Und)pensil (P)ar-gi?-n-o?m
pencil Neg-see-Und-you
'The pencil was/could not be seen by you'

Type III comprises clauses in which the Object is affected, but not effected. In these cases the Passive derivation is not applicable (though these clauses may take the node invariant Undergoer derivations of Reflexive, Reciprocal, and Benefactive).

The following are some of the transitive verbs whose Object is an Undergoer which is affected but not effected (the latter being Box 5 entries).

solo?	'hide'	por	'burn' (of chillies)
bam	'receive'	sada?	'sting'
ting	'shoot'	lom	'bite'
san	'chase'	po?	'stab'
ol	'write'	gulom	'know, understand'
irsur	'offer liquid drop by drop'	gu?n	'scratch' (an itch)
		la?	'hit'

With these clauses, if the Agent is unknown to the speaker, then he substitutes 'who' for the Agent. For example, when the speaker sees a child coming towards him and crying, he could say,

(Rs)nay da?n (P)ye?-u mo?-ru (Agt)moy ki (P)la?-r-om
what for cry-Inf you-pres cts who or hit-P-you
'Why are you crying' 'Who hit you'

but he could not say, 'The child was hit.'

Comment:

This approach of dividing the transitive clauses into three types, depending upon the extent to which the Undergoer is affected, has worked well and is almost water-tight. One exception that the writer has found is:

(Und)sorte (P)gi?-ru? ui?
all see-P/Und go/P/Und
'All was seen'

This is said, for example, when a person comes into the house and glances all around and goes out again. Here a Type II clause is behaving as though it were Type I.

This example would not be exceptional if the -nu? form of the two verbs under Type II were considered to be basically under the Di-Receptive node, rather than there by derivation. That would clear the treatment of the Passive derivation, but would mean adding new entries to the lexicon, namely, gi?-nu? 'to be seen,' and sama?n-nu? 'to be recognized.' (See the discussion under the Di-Receptive clause on other verbs which might be derived.)

The other exceptions to the system are the two verbs *taki?n* 'to beat to death' and kai?n 'to kill, murder.' These are exceptions in that though the Object (Undergoer) is undoubtedly effected, they will not take a Passive derivation (nor even the Reflexive derivation). One cannot say 'he was killed:' one can only say 'he died'—the verb 'to die' being *ki?n*. The reason for this is probably that these verbs themselves have been derived from the Receptive verb *ki?n* 'to die' by a causative derivation and causative constructions normally reject the Passive derivation. Rather than using a second derivation, the Parengi speaker reverts to using the more basic verb. (*kai?n* 'kill' is derived from *ab* + *ki?n* 'cause to die.' *ta-ki?n* 'beat to death' is also causative in flavour, though the precise meaning of *ta*- is not known. I suspect that *ta-ge?m* 'to ignite something' (Trans) would behave similarly being derived from *ge?m* 'to blaze' (Receptive).)

Sometimes ambiguity arises because the Undergoer (-nu?) derivation has so many uses.

(?)no?n	(P)gi-*n*-a?y	lu?r-ay
he	see-Und-Sp	pres cts

This could mean 'He (remote) is seeing himself' *or* 'He can be seen (by someone or other)', depending on whether the Subject is Agent-cum-undergoer, or Undergoer alone.

2. *Addition of a DP.*

Causative. The causative marker is an affix to the verb stem in the form of *ab*- or -*b*-, though it has many allomorphs. Any clause on the Event side of the Hale chart (i.e., the Transitive and Receptive groups) may take a causative derivation. In the causative derivation the Subject of the initial clause becomes the Object of the causative clause, with the Causer becoming the new Subject. E.g., 'X hit Y' would become 'W caused X to hit Y.' This causative transformation maps any Event clause on to the Transitive side of the tree with the obligatory Agent being the Causer. It is to be noted that the Causative clauses still stay within the system of the Hale chart; e.g., if you causativize a Ditransitive clause, then one of the original DPs must be deleted from the frame of reference (though it may be alluded to in the Associate slot or in the following clause). It is also to be noted that Stative clauses do not take the causative derivation.

However, for the Intransitive or Receptive clauses the causative derivation is a particularly effective device in that it may distinguish between first and second causers. If an Intransitive or Receptive clause is causativized it will then fall under the Transitive node on the Hale chart. This derived clause may then itself be causativized a second time. But it is to be noted that the Transitive and Ditransitive clauses themselves can only be causativized once. So for the Intransitive and Receptive clauses the first causation makes the clause 'Transitive' in appearance and the second causation makes it a Causativized Transitive clause (which would then fall under the Ditransitive node). This is very similar to Halliday's treatment of the English Verb Phrase, where the first causer has the role of Agent-Initiator and where the second causer has the role of Agent-Causer. The Agent-Initiator is directly involved in the action of the main verb, whereas the Agent-Causer is indirectly involved (e.g., by telling someone to do something). For example, in 'Mary lay the baby down,' or 'Mary caused the baby to lie down,' Mary is an Agent-Initiator; but in 'Bill caused Mary to lie the baby down (by commanding her),' Bill is an Agent-Causer and Mary is still an Agent-Initiator.

The causative infix -b-, which is probably the same morpheme as ab-, is of particular interest. It is only, but not necessarily, found with verb stems of the syllable structure CVCV(C) and is particularly common with those Receptive verbs which do not have an animate Undergoer. When the infix -b- occurs, the Subject will be an animate Agent-Initiator. There is only one exception to -b- occurring on a Receptive verb with an inanimate Undergoer, and that is the verb butong 'fear' (a Receptive verb that requires an animate Undergoer) which occurs with the infix -b- as boptong 'to frighten.' This seems to be some sort of historical freak form. It is to be noticed that other Receptive verbs with animate Undergoers and the same syllable structure do not take the -b- infix (e.g., mileʔy 'happy' becomes ab-miley; the form mibley is not allowed).

At first sight, the following example of an infixed -b- also looks as though it is an exception to the norm as it involves the Transitive verb tagu 'to burn or scorch something.'

(Agt-In)bolram-di (Und)boʔy araʔ (P)tabgu-ru
bolram-Po one tree burn/C-P
'Boldram caused a tree to get scorched'

However, the underlying clause which was causativized was not a Transitive clause but a Receptive clause which had been derived from the Transitive clause by means of the Passive derivation. The underlying clause was in fact:

(Und)boʔy araʔ (P)tagu-ruʔ
one tree burn-P/Und
'A tree get scorched'

which is a Receptive clause but with an animate Undergoer.

Therefore the following general statement can be made: The causative infix -b- is found to operate only on clauses of the Receptive form (whether basic or derived) which have an inanimate Undergoer. With respect to the feature of 'inanimateness' two exceptions have been found, butong 'fear' and tagu 'get scorched.' It is also to be noted that the causative infix -b- always indicates a first causer

(Agent-Initiator) and that if the verb is one of those that normally takes the -b- infix, then it must take it if the Causer is directly involved as an Initiator.

kadu?	'disappear' (Subject is Undergoer)
kabdu?	'cause something to disappear (Subject is Agent-Initiator)
ab-kabdu?	'cause someone to cause something to disappear' (Subject is Agent-Causer)

ab-kadu? is of dubious occurrence. My informant reckons it to be equivalent to kabdu?. However, the behaviour of another Receptive verb, poy 'turn round,' suggests differently. This verb is not of the syllable structure that may take the -b- infix, but notice in the following examples the extent to which the causative affix ab- is assimilated to the verb stem, and the accompanying change in meaning. For the sake of clarity the data is given phonetically.

(Und)bubong-di (P)poy-tu?
baby-Fo turn-F/Und
'The baby will turn round'

(Agt-In)ming* (Und)bubong-di (P)ne-a?poy-tu
I baby-Fo I-C/turn-F
'I turned the baby round'

(Agt-C)ming* (Und)bubong-di (P)ne-ab-a?poy-tu
I baby-Fo I-C-C/turn-F
'I caused someone to turn the baby round' (An Agent-Initiator is also involved)

(Agt-C)ming* (Und)bubong-di (P)ne-ap-poy-tu
I baby-Fo I-C-turn-F
'I caused the baby to turn round' (by my calling to him or by my telling him to turn round) (No Agent-Initiator is involved)

From this data one concludes that the Parengi language does maintain some distinction between the roles of first and second causers. This distinction is clearly seen with the Receptive clauses; elsewhere the role of first causer (Agent-Initiator) is not made explicit. The second causer may, however, be made explicit by double causation (ab-ab-), but in most cases the single occurrence of the causative affix may be construed as first or second causer.

The following examples are taken from each of the basic Event clause types. (The State clauses do not take the causative derivation.)

Basic Node	Basic Clause	Derived Clause	New Node
1	(Agt)mang (Si)ur'i lok etur (Und)bo?y kans you other folk to one bottle (P)mo-ta?y-tu you-give-F 'You will give bottle to someone else'	(C)ming* (Si)e-nom (Und)bo?y kans (P)no-ab-ta?y-t-om; I to-you bottle I-C-give-F-you (Ass)ur'i lok ba?tur other folk with 'I will cause you to give a bottle; to someone else' (Note that if the fourth DP was to be made explicit, then it had to be handled as an Adjunct.)	1
2	(Agt)bubong-di (Und)gaga? (P)lu?m-tu baby-Fo food swallow-F 'The baby will swallow the food'	(C)ming (Und)bubong-di etur (Si)gaga? (P)ne-ab-lum-tu I baby-Fo to food I-C-swallow-F 'I will cause the baby to swallow the food'	1
3	(Agt)bubong-di (Si)e-ming* (P)lala?n-t-ing baby-Fo to-me flat.-F-me 'The baby will flatten himself against me'	(C)no?n (Und)bubong-di etur (Si)e-ming* he baby-Fo to to-me (P)ab-lala?n-t-ing C-flatten self-F-me 'He will cause the baby to flatten itself against me'	1
4	(Agt)sua-bo?y (P)ye-ru la?-ru parrot-one run-P Axvg-P 'A certain parrot ran away'	(Agt-In)ming* (Und)sua-bo?v (P)ne-ab-ye-ru ne-la?-ru I parrot-one I-C-run-P I-Axvg-P 'I caused a certain parrot to run away' (by releasing it from my hand)	2
		(Agt-C)ming* (Und)sua-bo?y (P)ne-ab-ab-ye-ru ne-la?-ru I parrot-one I-C-C-run-P I-Axvg-P 'I caused (someone) to cause a certain parrot to run away' (by my telling him to release the bird from his hand)	1

Basic Node	Basic Clause	Derived Clause	New Node
5	(Si)tie' (Und)mu., (P)nu-k-tu? here you you-stay-P/Und 'You .... stay here'	(Si)tie' (C)ning' (Und)o-mum (P)na-gh-duku-t-um here I to-you 1-C-stay-P-you 'I will delay you'; 'I will cause you to stay'	2
6	(Und)bubong-di (P)mangar-ru? baby-Fo pine-P/Und 'The baby pined	(Agt-In)mung' (Und)bubong-di etur (P)mu-gh-mangar-ru you baby-Fo to you-C-pine-P 'You caused the baby to pine' (by your going away)	2
		(For Receptive clauses with emotional-state verbs, if only one causer is mentioned it will be the Agent-Initiator.)	
6	(Und)ning (P)na-butong-tu? I 1-fear-P/Und 'I will be afraid'	(Agt-In)ma'n (Und)o-ning (P)bogtong-t-ing he to-me fear/C-P-me 'He frightened me'	2
		(Agt-C)ma'n (Und)o-ning (P)gh-bogtong-t-ing he to-me C-fear/C-P-me 'He caused someone to frighten me'	1
6	(Und)kuso'n-di (P)ur-ru? dog-Fo arise-P/Und	(Agt-In)ning' (Und)ar'i kuso'n-di (P)na-gh-ur-ru I that dog-Fo 1-C-arise-P 'I caused the dog to get up' (by hitting it or shouting at it)	2
		(Agt-C)ning' (Und)guni-di etur (Si)ar'i kuso'n-di I girl-Fo to that dog-Fo (P)na-gh-gh-ur-ru 1-C-C-arise-P 'I caused the girl to cause the dog to get up'	1

Basic Node	Basic Clause	Derived Clause	New Node
7	No Data Available. (It may be that the Semi-Receptive clause undergoes the Focus derivation, to become Receptive in form, and is then causativized. According to my informant, the Semi-Receptive verb do? 'feel' does not take the causative derivation.)		
8	(OLoc)biel (P)da? gur-t-ay field water enter-F-Sp 'It will rain on the fields'	(C)ming* (OLoc)biel (P)da? ne-a?b-gur-tu I field water I C-enter-F 'I will cause it to rain on the field' (because the fields are dry)	4
	The causative of an Eventive clause is not to be taken literally. The Causer seems to be playing the part of a 'wisher,' 'inciter,' or 'inducer.'		

Direct Initiation. A few verbs, usually receptive, have been found to fall under the Transitive node having an Agent-Initiator as the subject but occurring without the causative affix. The verb is merely changed from a -nu? form to an -u form and another DP is added. However, this procedure of not using the causative affix to make a non-transitive verb transitive is considered, by my best informant, to be poor grammar. This procedure cannot be adopted for a Causer who is not the Initiator. In all the examples yet found, mostly in text, it is noted that the Undergoer is animate.

(Und)bubong-di (P)gon-ru? = = = >
baby-Fo lie-P/Und
'The baby lay down'

(Agt-In)ming* (Und)bubong-di (P)ne-gon-ru = = = >
I baby-Fo I-lie-P
'I lay the baby down' (Direct Initiation omitting the causative.)

(Agt-In)ming* (Und)bubong-di (P)ne-ab-gon-ru
I baby-Fo I-C-lie-P
'I caused the baby to lie down'

The Subject of this latter example could also be construed as second Causer.

(Und)mang (P)mo-k-tu? = = = >
you you-stay-F/Und
'You will stay'

(Agt-In)ming* (Und)e-nom* (P)ne-duku-t-om = = = >
I to-you I-stay-F-you
'I will delay you' (Direct Initiation omitting the causative.)

(Agt-In)ming* (Und)e-nom* (P)ne-ab-duku-t-om
I to-you I-C-stay-F-you
'I will delay you'

The Subject could also be construed as second Causer.

However, the writer has found one instance where what looks like direct initiation turned out to be otherwise. The verb asong-nu? 'to defecate' typically occurs in Receptive clauses. So one would expect the form ne-asong-t-om to mean 'I will cause you to defecate' (perhaps said by a parent sending his child into a field to do his daily performance), but this phrase was found in a story where a lion says to a rabbit, 'I will eat you whole, and I will defecate you whole." Here the verb has either been considered as a basic transitive verb, asong-u 'to defecate something,' or else there is a passive feature involved of which the writer is unaware (so that the phrase would then be translated, 'I will cause you to be defecated').

3. *Permutation of DPs*.

Focus. In the basic clause types there is generally no choice as to which DP is the subject of the verb and therefore the focus of the clause. For example, the Transitive group of clauses must have the Agent as the Subject; the Undergoer can only be made the Subject if the Agent is unknown or could be anyone, in which case the clause takes on the Receptive form by means of the Passive derivation. As for the Receptive and Di-Receptive clauses, the Subject must be the Undergoer.

However, in the Semi-Receptive clause there is some fluidity. As they stand, the Semi-Receptive clauses in Parengi are subject-less, the sole DP being Site which occurs in the Referent slot. Most Semi-Receptive clauses may be transformed to make the Referent the Subject, in which case the clause becomes Receptive with the verb marked as having its Subject as Undergoer. This transform brings into focus the fact that the sole DP is undergoing the process and is not just the Site of the process.

Examples:

(Si)e-ning* (P)ada?-r-ing-ay ===>
to-me thirst-P-me-Sp
'I was thirsty' (Semi-Receptive)

(Und)ming* (P)ne-ada?-ru? ne-k-ru?
I I-thirst-P/Und I-be-P/Und
'I was thirsty' (Receptive, derived)

(Si)e-ning* (PEx)butong (P)do?-r-ing ===>
I fear feel-P-me
'I felt afraid' (Semi-Receptive)

(Und)ming* (PEx)butong (P)ne-do?-ru?
I fear I-feel-P/Und
'I felt afraid' (Receptive, derived)

Compare also: (Und)ming* (P)ne-butong-u?
I I-fear-P/Und
'I was afraid' (Receptive, underived)

(The verb *do?* 'feel' is a more intensive form than the above example.)

The following restrictions have been noticed when a Semi-Receptive clause is changed to a Receptive clause:

i. The derived form does not take the present continuous tense.
ii. The verbs *d'uka* 'pain' and *zu?m* 'itch' can only occur in the basic (Semi-Receptive) form.

iii. It may be that the derived clause more readily takes the modal auxiliaries duku 'be' and ui 'go.'

iv. The derived clause has the same limitations on its periphery as did the basic clause. In particular, an Outer Locative can only occur in an embedded clause functioning in an Adjunct slot.

(The above is dealing with clause-level focus. At sentence level a particular DP, other than the Subject of the independent clause, may be brought into Topic focus by bringing that DP forward in the sentence.)

4. Combinations.

4.1 Stativization.

The state verb duku 'to be' has been mentioned in Section C.1.1 on tense, where it signifies that the effects of an event continue as a state.

no?n koko-ru? duku?
he sit-P/Und be/Und
'He has sat down' i.e., he sat down and is still seated.

Here the state (not the action) has continued for some time. The adding of the verb duku to an Action clause combines an Event with a State to form a State clause. This derived State clause will then occupy a similar position on the State side of the Hale chart as the basic (underived) clause by merely deleting the auxiliary verb together with affixes attached to it.

The reader is reminded that when the verb duku is prefixed in any way, the verb stem may be shortened to ku or k.

Basic Node	Stativized Clause	New Node
1	(Agt)bileng' (Und)kar'a-di etur (Si)sio mapru-n ba? we rabbit-Po to lion god-Lk place (P)le-bay: le-k-ru? we-send/P we-Axst-P/Und 'We had sent the rabbit to the lion-god's place'	9
2	(Agt)ming' (Und)bo?y tsoka (P)ne-aku?i ne-k-u? I one shirt I-buy I-Axst-Und 'I have bought a shirt (and still have it)'	10

Often, but not necessarily so, Transitive verbs with effected (changed) objects take the Passive Transformation to the Receptive form (see Section D.1) before they are stativised. For example:

Basic Node — Stativized Clause — New Node

(Agt)no?n (Und)ar'i sisi?n (P)ga?n-ru duku?
he that meat cut-P be/Und
'He has cut the meat'

(Und)ar'i sisi?n (P)ga?n-ru? duku?
that meat cut-P be/Und
'The meat has been cut'

3 (Agt)bubong-di (Si)e-ning* (P)oting-i(?)ng duk-i?ng 11
baby-Fo to-me lean-me/Und Axst-me/Und
'The baby has leaned against me'

4 (Agt)put'a-ning (P)pung-i(?)ng* duk-i?ng 12
stomach-my fill up-me/(Und) Axst-me/Und
'My stomach is full/bloated'

*(?) indicates the glottal stop is optional and non-phonemic. It may occur because the body is involved in the action. Also see the Section on Possessed Item Agreement (C.4).

5 (Und)bo?y amon (Si)e-ning* (P)bam-(m)-i?ng duk-i?ng 13
one arrow to-me hit-P-me/Und Axst-me/Und
'An arrow has hit me'

6 (Und)zi?ng-doy (P)liga?n-ru? duku-? 14
leg-his break-P/Und Axst-Und
'His leg is broken'

7 Lack of data (15?)

The following examples suggest that it might be usual to make the Semi-Receptive clause of Receptive form before stativizing it.

(Und)ming* (P)ne-asu-ru? ne-k-u?
I I-ill-P/Und I-Axst-Und
'I have been ill (and still am)'

(Und)ming* (P)ne-ada?-ru? ne-k-ru?
I I-thirst-P/Und I-Axst-P/Und

8 Lack of data (16?)

The unavailability of informant help at this time is unfortunate as a search of the Parengi concordance and texts does not furnish one with any example of the stativization of the Semi-Receptive or Eventive clauses. The writer feels it to be unwise to presume that Eventive and Semi-Receptive clauses may be stativized (particularly the latter). However, the data that is given here is at least sufficient to show that more terminal points on the Hale chart are needed to account for derived clauses than for the basic clause types of Parengi.

4.2 Combinations of Derivations.

Most of the node-variant derivations described in this paper may also act on a clause that has already undergone derivation, but the following restrictions have been noticed with respect to the order of application of derivations:

i. If the Focus permutation occurs, this must be the first derivation to be used. The Focus permutation only applies to clauses under the Semi-Receptive node.

ii. Only the Causative derivation may be applied twice. The Causative derivation may be applied to any Event clause.

iii. Stativization is applicable to any Event clause and is the last of the derivations to be used. A State or stativized clause has not been found further derived.

Passive and Causative.

(Agt-In)bolram-di (Und)bo?y ara? (P)tabgu-ru
bolram-Fo one tree C/burn-P
'Boldram caused a tree to get burnt'

(See also the discussion of this clause in Section D.2)

Passive and State.

(Und)indi kumda (P)suy-? duku-?
this pumpkin pierce-P/Und be-Und
'This pumpkin has been pierced'

Causative and State.

(Und)angal (P)ab-oting-u duku-?
wood C-lean-P be-Und
'The wood has been caused to lean' (i.e., someone unknown had stacked the wood against a wall.)

Causative, Passive, and State.

(Und)kamas rao-n (P)a?p-po?-ru? duku?
kamas rao-Lk C-stab-P/Und be/Und
'Kamas Rao has been stabbed'

(This is an uncommon construction and is the only example that has been found of a Causative and a Passive together. The causative affix and verb stem have been treated as though they together form a transitive verb. This transitive verb has then undergone the Passive derivation that deletes the Agent (in this case, Causer) from the frame of reference. The situation is that Kamas Rao is seen lying with a dagger in his chest, but the assailent is unknown. So the speaker says, "Kamas Rao has been caused to be stabbed.")

Focus and State.

(Und)ming* (P)ne-asu-ru? ne-k-ru?
I I-fever-P/Und I-be-P/Und
'I had been ill'

E. Dependent Patterns.

Foreword. With respect to the Dependent clauses, the description given in this paper is very tentative and does not claim to be exhaustive. The writer has not been able to study them intensively with the help of a good informant. Also, an analysis of sentence structure is an essential pre-requisite to a reliable description of the dependent clauses, and this has not been done for Parengi.

1. Embedding within the Nominal Phrase.

Adjectival Embedding. The affix -*nu* may be added to an independent clause so that the whole may function as the Modifier in a Nominal Phrase.

Comments:

i. The clause is inflected for person and tense.
ii. The Nominal Phrase containing this embedded clause may function in any clause level slot that would normally take a Nominal Phrase as filler.

Examples:

(T)le-ga?-ru-nu kitur
we-eat-P-Aj time
'At the time (when) we ate...'

(OLoc)le-ga?-ru-nu ba?
we-eat-P-Aj place
'At the place (where) we ate...'

(Agt)kuso?n-di etur bo?y za?ng ta?i-nu adu?n-di (PEx)dungka (P)duku-?
dog-Fo to one bone give/P-Aj boy-Fo tall be/Und
'The boy who gave the dog a bone, is tall'

(Und)ming-nu liga?n-ru?-nu-t'a (Si)a?sung (P)duk-a?y
I-Aj break-P/Und-Aj-Nom house be-Und/Sp
'My broken one is at home'

2. Embedding within the Clause and/or functioning in the Sentence.

The Function of the following clause-relator words and affixes is to embed a clause in one of the slots of an independent clause, so relating the action of the embedded clause to the action of the independent clause in which they are embedded. These relator words and affixes are listed in the table below, together with a note of their function. (Some of these words and affixes may also cause the clause to fill slots on Sentence level.)

Function / Form	Adjunct			Subject	Gloss
	Temp.	± Cond.	Reason Purpose		
sun	+				'when' (F)
du	+				'when' (P)
zi?(n)	+				'when, although'
nen, den	+	+			'if'
sunen	+	+			'when and if'
nen zi?	+	+			'even though'
da?n			+		'for, because'
-nu?, -u			+	+	participle

Figure 8. Clause Function Chart

sun 'when' (future perfect)

i. The dependent verb is past aorist and is inflected for person and number.

ii. In the Parengi concordance of text materials three instances are found with the dependent verb in the future tense, but none of these have been recently checked with an informant.

(T)bio?gi ne-gi? sun (PEx)butong (P)ne-do?-tu
tomorrow I-see/P when fear I-feel-F
'When I see it tomorrow, I will feel afraid'

(T)liyong le-ti?-ru le-di?-ru sun (M)bar (Und)deray (P)le-ti?-tu
paddy we-weed-P we-finish-P when again millet we-weed-F
'When we finish weeding the paddy, we will again weed the millet'

...(T)ingk? sun (P)ingku?
not be when not be
'...(and) when it is not, it is not'

du 'when' (past), 'and then' (past perfect)

i. Dependent verb is often in past aorist.
ii. Subject of the two clauses is the same.

(T)udubun ne-gi? du (PEx)butong (P)ne-do?-ru?
yesterday I-see/P when fear I-feel-P/Und
'When I saw it yesterday, I felt afraid'

(T)zalaput' ne-i? du (Und)redio (P)ne-gi?
jalaput I-go/P when radio I-see/P
'When I went to Jalaput I saw a radio'

zi?(n) 'when' (in the near past) 'although'

i. Commonly takes negative independent clause.
ii. The Subject of the independent clause must be one of the DP's—but not the Subject—of the dependent clause.
iii. Dependent clause is past aorist and inflected for person and number.

(T)en ne-sama?n-ru zi? (P)ar-sama?n-n-i?ng
that I-recognize-P when Neg-recognize-Und-me
'Although I tried to recognize it, it was not recognized by me'

(T)anding-ay gi?-ay zi? (PEx)besi d'ur ne? (P)duk-ru?
backwards-Sp see-Sp when much far it be-P/Und
'When he looked down, it was a long way'

nen, den 'if'

i. Dependent verb is uninflected for person and tense. The Undergoer function is marked on the relator itself, an -u construction taking nen, and a -nu? construction taking ne?n.
ii. If the dependent clause contains a main verb and an auxiliary verb, then both are marked with nen.
iii. den is a dialectical variant of nen.

(T)silay nen ta?y nen (M)bar (PEx)tsot' (P)da-ru? ui?
sew if Axbf if again short become-P/Und Axp
'If it were sewn, it would again become shorter'

(T)payt'i di? *ne?n* sina (Agt)ming (P)n-a?-t-ay
work finish if/Und Emp I I-come-F-Sp
'If the work is finished, I will come'

sunen '*when* (future) *and* *if*'

i. The dependent verb may be in the future or past aorist.
ii. It is sometimes used in the sense of 'in the unlikely event of.'
iii. Often the verb 'to be' or 'to say' is omitted and taken as understood.

(T)ingk? *sunen* (Und)gaga?-gigi? (P)ga?-tu la?-tu
not be when and if food-Tag eat-F Axvg-F
'Should it not be so, he will gobble up all the food'

(T)bam-u? *sunen* (Und)amon d'ar-ru r'ey (P)sun-t-ey
hit-Und when and if arrow grasp-P Excl say-F-they
'When it is hit they say, "The arrow got it!"'

nen *zi?* '*if*, *although*' (gloss uncertain)

i. The object of the dependent clause is the subject of the independent clause. (This means that the dependent clause must have a transitive verb.)
ii. One clause—usually the independent one—occurs in the negative and the other clause will be positive.
iii. All the restrictions that apply to *nen* apply to *nen* *zi?*.

(T)inger la? *nen* *zi?* (P)or-ye?
youth hit if when Neg-cry
'Even though you hit a youth, he will not cry'

(T)gi? *nen* *zi?* (P)or-gi-n-a?y
see if when Neg-see-Und-Sp
'Although one looks, it cannot be seen'

da?n '*because*, *for*'

i. If the dependent clause has the verb in the Infinitival form, then it often indicates Purpose. Otherwise, it indicates Reason. However, the boundary between Reason and Purpose in Parengi is not clear to the writer at present.
ii. This same relator might be used to relate two clauses that have different subjects, and in that context, it is similar in meaning to *du*.

(Rs)angoy-di ui? *da?n* (P)le?n-ru zum-u
hen-Fo go/P because catch-P eat-P
'Because the hen went, (the lion) caught it and ate it'

(Pur)dabu za?-u da?n (P)ne-i?
money solicit-Inf for I-fo/P
'I went to solicit money'

The above relators may themselves occur in strings:

a?sung duk ne?n sun zi? bo?y nay-t'a bay-ay sun zi? bo?m-tu
house be if/Und when when one what-Nom come-Sp when when bark-F
'When he (the dog) is in the house and someone comes, he will bark'

-nu?, -u Participle.

i. The infinitival affixes -nu? and -u have two functions. One is to allow a clause to fill the Subject slot of an independent clause.

(Und)bubong digin aba-nu sama d'ar-u (PEx)niman
child Cl father-Aj story grasp-Inf good
'It is good for children to keep their father's words'

(Und)ming kat'ak ui-nu? (PEx)bond' (P)da-ru?
I Cuttack go-Inf/Und closed become-P/Und
'My going to Cuttack was stopped'

ii. The other function is to embed a clause in the Purpose slot of an independent clause. (This form of embedding has only been found with the verb 'to go.' The embedded clause could be considered as a Complement also.)

(Und)bileng' (Pur)ur'a yu?-u (P)le-i?
we mango remove-Inf we-go/P/Und
'We went to collect mangoes'

(Pur)demsa a?n-u (P)ui-nu? lu?r-ey
demsa dance-Inf go-Inf/Und Axpc-they
'They are going to dance the Demsa'

3. Functioning as a Coordinate Clause.

The suffix -or 'Immediate Sequential Action' immediately follows the verb stem. It indicates that the action of the dependent clause immediately precedes the action of the main clause and is coordinate to it. (It requires that is subject be the same as that of the main clause.)

(P)ne-tinang-or-tu? (Si)at'-un (P)ne-i-tu?
I-stand-IA-F/Und market-to I-go-F/Und
'I will stand up and immediately go to the market'

(Und)bubong-di etur (P)ne-ur-or-ru? (P)ne-la?-ru
baby-Fo to I-arise-IA-P/Und I-hit-P
'I got up and immediately hit the baby' (A 'merged' clause.)

(P)ne-ga?-or-ru (P)ne-asi-ru?
I-eat-IA-P I-wash hands-P/Und
'I ate and immediately afterwards washed my hands'

The affix -ni might also be used to make a clause dependent, though there is some doubt at this point as the clause to which the -ni is attached is already in the infinitival form and therefore already a dependent clause. See the discussion and further examples under Habitual Aspect (Section C.1.2).

(Si)iskul o?tur (P)o?bay-ni // (Und)tangk (P)ga?-ru
school from come-? rice eat-P
'Coming from school, I ate rice'

Dependent clauses may also occur in strings, as is shown by the following examples:

(T)le-lu?n-ru sun (T)ayu? ba?y-gi sun (P)le-le?n-tu
we-lift-P when fish come-Pl when we-catch-F
'When we lift (the net), when the fish come, we will catch them'

(T)soka-siki kuy ne?n duk ne?n ne? (T)go?tung-gi?ting ay-ne?
shirt-Tag wear if/Und Axst if/Und it cloth-Tag like this

gusa?y ne?n du (T)go?tung-di a?y-nu bil nen du
wrap if/Und and then cloth-Fo like this lay out if and

(T)gon ne?n ta?y nen ne? (M)kondek (P)or-lom-ay-gi
then lie down if/Und Axbf if it little Neg-bite-Sp-Pl
'If we are wearing shirts, (or) if we are wrapped up in blankets like this, and then if the blanket is laid out and one lies down, they (bed-bugs) will not bite so much.'

F. Summary.

1. With Respect to the Hale Chart.

In Section B it was shown that ten terminal nodes (eight action and two state) on the Hale chart accounted for the basic underived clause types in Parengi. Sections C and D have shown that from these basic clauses other clause types may be derived, some of which move the clause to another node on the Hale chart. In particular, it was seen that other nodes were needed than the basic ten, and also that any derivation stayed within the Hale chart (i.e., the Hale chart represents a 'closed' system). The matter of whether all sixteen nodes of the Hale chart are used in the Parengi language is left open as data is lacking for the Semi-Attributive and Circumstantial nodes.

2. The Ergative Structure of Parengi Clauses.

This was commented on at the close of Section B.1 where three basic situations were shown to exist:

a. State (typically State verbs)
b. Kinematic Action (typically Receptive verbs)
c. Dynamic Action (typically Transitive verbs)

In Section D it has been seen that action clauses can be stativized, that Receptive clauses can be transitivized (by the use of Causative), and that Transitive clauses can be Receptivized (by the use of the Undergoer-Passive transformation). This gives rise to two chains of clause types, as shown in the diagram below:

$$\begin{tikzcd} & \underline{\text{Receptive}} & \underline{\text{Transitive}} & \underline{\text{Causative}} \\ 1) & \boxed{\text{S as Und}} \arrow[r, "C"] & \text{S as Agt-In} \arrow[r, "C"] & \text{S as Agt-C} \\ 2) & \text{S as Und} & \boxed{\text{S as Agt}} \arrow[l, "P"'] \arrow[r, "C"] & \text{S as Agt-C} \end{tikzcd}$$

Key:
$\xrightarrow{C}$ Causative transformation
$\xrightarrow{P}$ Passive transformation
$\longrightarrow$ Direction of transformation
$\boxed{}$ Basic clause type

The first chain of transformations begins with the basic Receptive Clause, which can be causativized to fall under the Transitive node on the Hale chart, and may be causativized a second time. The second chain of transformations begins with the basic Transitive Clause which may either take the Passive derivation to become Receptive in form or it may be causativized. Most verbs in Parengi fall clearly into one or other of these two 'chains' depending on whether they are primarily Undergoer orientated or Agent orientated.

The approach developed in this paper gives rise to finer distinctions among clauses traditionally classified as Transitive or Intransitive because the sememic roles of the DPs have also been taken into consideration. For example the two English clauses 'he ran' and 'he sat' would both be considered Intransitive. But in Parengi the former would be Intransitive, the Subject being marked as Actor, and the latter would be Receptive, the Subject being marked as Undergoer.

Appendix.

If one sets up the hypothesis that "Semantic roles of dramatis personae are preserved under derivation," then there are one or two interesting changes in the basic clause types of Parengi.

First let it be said that the above hypothesis does not exclude the fact that a DP may have as additional or combined role when it is derived; rather, it maintains that the original role will still be there.

This feature of semantic roles being preserved under derivation is seen in the Undergoer Transformation (see Section D.1). In the following example the basic clause has Subject as Agent and Object as Undergoer, whereas the derived clause has Subject as Undergoer and Referent as Agent.

(Agt)ming (Und)ur'a-zadz (P)gi?-u ne?ru = = =>
I plane see-Inf I/pres cts
'I am seeing the plane' (Active, Basic)

(Agt-Si)e-ning (Und)ur'a-zadz (P)gi-n-i?ng lu?r-ing
to-me plane see-Und-me pres cts-me
'The plane is being seen by me' (Passive, Derived)

This latter clause would fall under the Di-Receptive node of the Hale chart, but it is different from the basic Di-Receptive clause in that the Referent is the Agent-cum-Site.

This has implications for the basic Semi-Receptive clause type. All of the Semi-Receptive clauses (except those with the verbs 'pain' and 'itch') will take the Focus derivation (see Section C.3) which makes the Referent into the Subject instead, and the predicate then indicates that the Subject is Undergoer.

Semi-Receptive, basic: (P)ada?-r-ing = = =>
thirst-P-me
'I was thirsty'

Receptive, derived: (P)ne-ada?-ru?
I-thirst-P/Und
'I was thirsty'

If the two examples above are semantically the same (as in accord with the hypothesis)—though rearranged grammatically—then it suggests that in the Semi-Receptive formula we should have Referent as Undergoer rather than Referent as Site.

The situation is that in this paper as a whole, the grammatical form has taken precedence over the semantic form in places of doubt (e.g., because a slot is marked Dative, i.e., by *etur*, we have taken it as Site). Now, in this Appendix, we want to let semantics take the upper hand. This being so, the structure of the Semi-Receptive clause in Parengi would be

+ Ref/Und + P: SRec VP

which would no longer be Semi-Receptive at all, but would be Receptive. With this move there is now no data left for Semi-Receptive and a hole is made in the Hale chart. One would then expect a matching hole on the State side under Di-Attributive (as Di-Attributive could only result from a stativized Semi-Receptive).

The question to ask now is, "Is it reasonable to have such a hole in the Hale chart?" With the hole in the chart it would imply that in any Parengi clause, *if there are any dramatis personae at all, then one of them must be Agent or Undergoer*. A similar situation has been described by some linguists studying English syntax. For example, Evelyn Pike, in her recent work on the English Verb Phrase, has not been able to find any example of an English clause that would inherently belong under the Semi-Receptive node. Also, Halliday, in his study of English clauses, concludes that if any DPs occur then the Undergoer is obligatorily one of them. Therefore it appears that it is reasonable not to find the Semi-Receptive clause as a basic clause type because of the ergative structuring of the language. If this system is followed it would mean that the Undergoer can function in one more situation, namely that of Recipient of a physical state (the other situations are given in Section B.1.2).

The basic clause types for Parengi could then be displayed as follows:

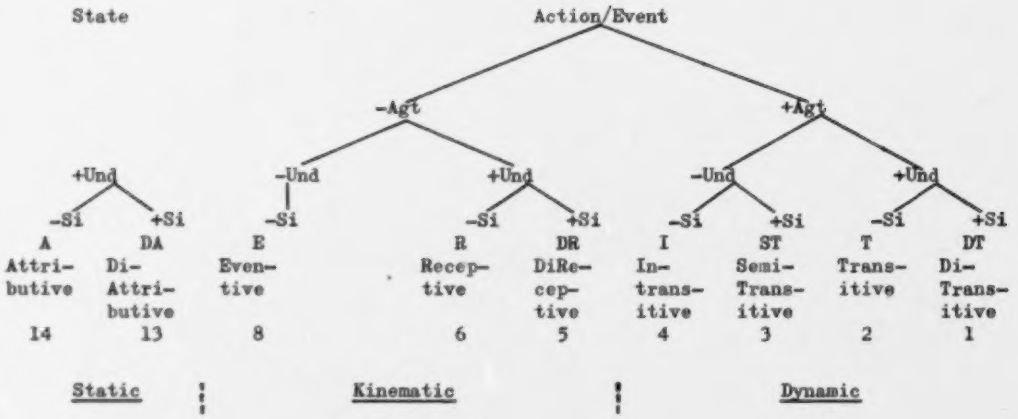

Figure 9. Parengi Clause Tree.

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INDEX TO PARENGI

A. Introduction . . . 235

- 1. The Language . . . 235
- 2. Research Details . . . 235
- 3. Method of Analysis . . . 236
- 4. Abbreviations and Symbols . . . 241

B. Basic Patterns . . . 242

- 1. The Contrastive System in Parengi . . . 242
  - 1.1 The General Organization of the Grammatical Components within the Clause and the Marking of their Semantic . . . 242
  - 1.2 The Contrastive System of Clause Types . . . 245
- 2. The Contrastive Clause Types . . . 248
  - 2.1 Di-Transitive . . . 248
  - 2.2 Transitive . . . 250
  - 2.3 Semi-Transitive . . . 251
  - 2.4 Intransitive . . . 252
  - 2.5 Di-Receptive . . . 253
  - 2.6 Receptive . . . 258
  - 2.7 Semi-Receptive . . . 262
  - 2.8 Eventive . . . 264
  - 2.13 Di-Attributive . . . 265
    - 2.131 Possessive Di-Attributive . . . 265
    - 2.132 Locative Di-Attributive . . . 266
    - 2.1321 Locative Existive . . . 266
  - 2.14 Attributive . . . 268
    - 2.141 Descriptive-Attributive . . . 268
    - 2.142 Equative-Attributive . . . 269

C. Inflected Patterns. (Mode-Invariant Derivations) . . . 270

- 1. Tense-Aspect System . . . 270
  - 1.1 Tense-Aspect . . . 270
  - 1.2 Habitual-Aspect . . . 272
  - 1.3 Negation . . . 273
- 2. Mode . . . 274
  - 2.1 Speaker Orientation . . . 274
  - 2.2 Imperative-Hortatory . . . 275
  - 2.3 Subjunctive . . . 278
  - 2.4 Modal Auxiliaries . . . 278

3. Voice. 281
 3.1 The Undergoer Function 281
  3.11 Reflexive. 281
  3.12 Reciprocal 281
  3.13 Benefactive. 282
  3.14 Capabilitive 283
4. Possessed Item Agreement 284

D. Derived Patterns. (Node-Variant Derivation). 285
 1. Deletion of DP
  The Undergoer Function—Passive Derivation. 285
 2. Addition of DP
  Causative 289
 3. Permutation of DP. 296
  Focus 296
 4. Combinations 297
  4.1 Stativization. 297
  4.2 Combinations of Derivations. 299

E. Dependent Patterns. 300
 1. Embedding within the Nominal Phrase. 300
 2. Embedding within the Clause. 301
 3. Functioning as a Coordinate Clause 304

F. Summary. 305
 1. With Respect to the Hale Chart 305
 2. The Ergative Structure of the Parengi Clause 306

Appendix. 307

References. 310

Paired Semantic Components,
Paired Sentence Reversals and the Analysis of Dhangar-Kudux Discourse

Kent H. Gordon and Kenneth L. Pike

A. Introduction.

The purpose of this paper is to explore further the practical and theoretical implications of using paired semantic components and paired sentence reversal as tools for linguistic research. For the paired semantic components approach we build on the work of others such as Wise and Green (1971) but with our emphasis shifting here to analysis of levels above the Sentence. For the sentence reversal approach we build on the work of Pike and Pike (1971) and Pike and Schoettelndreyer (1972).

The mechanics of our approach is simple. Given a story with sentences numbered in order,[2] we take each possible combination of juxtaposed paired sentences, 1-2, 2-3, 3-4, etc., and perform two experiments. First, we attempt to describe explicitly for each pair of sentences what the semantic relation is that lies between them. Whenever it turns out that we are unable to describe for a given pair of sentences what that specific relation is we try to describe the relation between that sentence pair, taken as a whole, and the next sentence. And so on. Second, we attempt to reverse the order of each possible pair of juxtaposed sentences so that we obtain 2-1, 3-2, 4-3, etc. As we proceed with this experiment we check with native language assistants to see if the particular reversals are acceptable to them.[3] Often their acceptance of a particular reversal is accompanied by various degrees of insistence that some grammatical adjustments be made (e.g., readjustment of particles, tenses, etc.) to compensate for the 'upset' caused by the reversal. In each case, furthermore, the reversal is rejected unless it is possible (after the grammatical adjustments indicated) to preserve the original truth-value and content of the narrative. That is, all chronological and logical relations existing among the various parts of the original text must be preserved after the reversals and concomitant adjustments have been made.

Parallel to the procedure with paired semantic components, whenever a pair of sentences do not appear to be reversible, we proceed to ask if that particular pair of sentences, taken as a whole, is reversible with the next sentence in the text. Thus, we are interested not only in the reversibility of sentences, but in the reversibility of parts of texts larger than sentences. Similarly, we are interested in describing the semantic relations existing between parts of texts larger than sentences.

These mechanical manipulations should be considered as no more than easily usable devices to study the structures which interest us. We wish to see if we can find firm experimental evidence (experimental in terms of these mechanisms) which will help us to discover and study the characteristics of units larger than the sentence; and to study these units phonoligically, semantically, and grammatically with their inter-relationships. The emphasis is on alternative, but semantically similar, grammatical structures (forced by the mechanics of sentence-reversal), since we have stated the requirement that the truth-value must not be changed.

Before discussing these matters, however, we must first specify certain assumptions relevant to the inquiry.

B. Assumptions About Universals of Human Nature Underlying the Validity of our Results.

Coherence of Discourse. We assume that the speaker of a discourse intends that his discourse be coherent. We at this point are not interested in texts where the speaker is known to be attempting to obfuscate an issue, or is known to be insane.

Assuming, then, that coherence is intended by the speaker, how can we, as hearers and interpreters, demonstrate that his text is in fact coherent? Perhaps, as Bellert (1970) tells us, it will not be possible to demonstrate that his text is, in fact, coherent. The speaker may fail to make explicit certain semantic relations between parts of his narrative because he assumes that his hearers know certain things, which in fact they do not.[4] At such points we are unable to demonstrate that the text is coherent. Or, to put it another way, if we assume that he intended his text to be coherent but find it is not completely so, we shall conclude that we are unable to specify what the semantic relations are between certain parts of the text. In general, therefore, a text is demonstrated to be coherent if and only if the semantic relations existing among its parts are specifiable, unambiguously, at time of authorship by the audience it was intended for. We say 'at time of authorship' because it may be possible for a text to be interpreted unambiguously by some of the hearers and yet for their interpretation to be incorrect. Only the author would be able to make such a judgment.[5]

Intelligibility. We assume that it is possible for a hearer to understand a text in his language within a universe of discourse which is familiar to him.

How can the hearer demonstrate that he does so understand? One kind of evidence is a performative one. If the text says to shut the door, the hearer can show his understanding by proceeding to shut the door. A second kind of evidence--and the one which concerns us vitally here—is *his ability to paraphrase the text* which he has heard. Unless he can paraphrase the text in such a way that the author of it can say, "Yes, that is what I said," there may be no strong evidence that he has understood it. (We do not distinguish here between paraphrases which are either expansions or abbreviations (or summaries), from paraphrases which are of approximately equal length.) If the text is to be coherent, and if the hearer is to understand, the speaker will be talking or writing about the real world of his audience or the putative real world of his universe of discourse, or he will not get the work done which he wants. He will fail to get verbal or other response in terms of agreement, learning, or some other form of paraphrase; or else he will be treated as mad, outside the community, or a buffoon.

Focus Shift. We assume that a universal human capacity allows an individual *to change focus of attention* from one part of a discourse to another or from one characteristic of an event to another and that these changes of focus, when involving repetition of a discourse, result in a *re-focussed* paraphrase of that discourse. This ability to change focus is a prime epistemological capacity universal to human speakers, and paraphrase is one result of that capacity. We assume, that is, that an acceptable reversal of sentence order with the accompanying necessary grammatical adjustments is an *experimental analogue* of a paraphrase which might have resulted naturally from an appropriate change of focus.

Since the native *speaker* is able to change focus and thereby to *generate* different paraphrases of a given description of an event, it is similarly assumed that the native assistant of our reversal sets is often able to adjust the reversed forms grammatically to be appropriate to some paraphrase potentially acceptable within his own system. If he is unable to find any such adjusted grammar, we may assume tentatively, subject to later revision, that such a focus change may have been blocked by some semantic or grammatical constraint somewhere in the system.

It has been previously reported (Pike and Pike, 1971) that Gleason states that inversion of chronological sequence is not allowed in Kate (New Guinea) narratives, and that, therefore, words like 'after' and 'before' do not occur in Kate. Thus, we affirm that focus changes are possible, including some kinds of reordering, but we do not attempt to specify as a universal precisely what the limits of focus change are, nor exactly where they will be seen. That study must be an empirical one. And it is for this reason that we are interested in the Dravidian material given here, as over against the Tibeto-Burman materials of Sherpa and the English material of the initial articles (Pike and Schoettelndreyer, 1972, and Pike and Pike, 1971). Eventually the studies need to be extensive enough to allow careful comparison—a goal still far in the future.

Context Sensitivity. It is further assumed that in normal language usage a *sentence does not mean anything apart from discourse*, but that a sentence only has meaning as a point in a larger structure. That is, we are interested not in the meaning of *abstracted* sentences—which in some sense do not occur "in nature"—but in the relationship of sentences to discourse both in meaning and in form.

This, then, relates to questions about the "grammaticality" or appropriateness of any one sentence. Rather than attempting to say that a sentence does or does not occur, is or is not grammatical, is or is not aberrant, we ask whether or not a sentence is or is not a *paraphrase of another within the context of the given discourse*.

C. *The Sample Text*.

The text which we now wish to analyse in the light of the preceding assumptions is given with interlinear literal translation, followed by a key to morph abbreviations, and the free translation.[6] Single slash represents sentence boundary; double slash, paragraph boundary; and triple slash, discourse boundary.

1.	eek	din	mankhu-s-hi	tanGg-io	tam-ba-r-nu
	one	day	Mankhu-m,s-NR	3,Rfl-mother	3,Rfl-father-hpl-iLoc

jhagRa	manj-a	ker-a	/	2.	tam-ba-s	ba'-d-as
fight	become,pt-3,s	Aux,pt-3,s			3,Rfl-father-m,s	say-prt-3,m,s

eeee	mankhu	kal-a	paRh'-a-ge	iskul	/	3.	tanGg-io	bi'-i
hey!	Mankhu	go-impv	read-IA-PrpInf	school			3,Rfl-mother	say-3,s

jee	mala	maa-kaal-o-s	/	4.	i-san	kaam-dhandha	nee	na'-o	/
	no	neg-go-ft-3,m,s			this-Loc	work	who	do-ft,3,s	

5.	khiti-kola	baari-jaari	too	i-san	nee	na'-o	/	6.	see	mala
	farming	gardening	then	this-Loc	who	do-ft,3,s			so	not

too	maa-kaal-o-s	paRh'-a-ge	//	7.	ho-n:e-m	hoy-te
then	neg-go-ft-3,m,s	read-IA-PrpInf			that-Mnr-E	become-Mnr

hoy-te-m	du-nu-goRe-ne	jhagRa	manj-a	ker-a	/	8.	bas
become-Mnr-E	two-IA-hC-iLoc	fight	become,pt-3,s	Aux,pt-3,s			

mankhu-s	huN	tanGg-io-hi	baat-an	khanDi-as-ki	cala
Mankhu-m,s	also	3,Rfl-mother-NR	word-Acc	cut,pt-3,m,s-ptc	go

ker-as	//	9.	aa-s	huN	paRh-te	paRh-te	cha-Th-ma	kalas
Aux,pt-3,m,s			that-m,s	also	read-Mnr	read-Mnr	six-IA-ord	class

paRhc-as	/	10.	tekar-baad-nu	ambi-as	cic:-as
read,pt-3,m,s			this-after-iLoc	leave,pt-3,m,s	Aux,pt-3,m,s

paRh-na-n	/	11.	tam-ba-s	huN	baac-as	amb-a
read-nom-Acc			3,Rfl-father-m,s	also	say,pt-3,m,s	leave-impv

ca'-a	bav:a	paRh-na-n	/	12.	ni-nG-hai	kaam	jokar
Aux-impv	son	read-nom-Acc			2-s-NR	work	appropriate

manj-a	ker-a	/	13.	see	ambi-as	cic:-as	//
become,pt-3,s	Aux,pt-3,s			so	leave,pt-3,m,s	Aux,pt-3,m,s	

14.	ambi-as	cic:-as	khiti-kola	na'a	hel-r-as	/
	leave,pt-3,m,s	Aux,pt-3,m,s	farming	do-Inf	begin-mid-3,m,s	

15.	pac-ma	cha-Th-ma	kalas	paRhc-as	/	16.	ak:u	dunia-
	five-ord	six-IA-ord	class	read,pt-3,m,s			now	world

daari	kud:i-as	nanj-as	kud:-a	lag-d-as	///
	travel,pt-3,m,s	Aux,pt-3,m,s	travel-Inf	ImpAux-prt-3,m,s	

Key to Morph Abbreviations:

m	masculine	Imp	imperfective
s	singular	PrpInf	purpose infinitive
NR	nominal relator	neg	negative
3	third person	ft	future tense
Rfl	reflexive	Mnr	manner
hpl	human plural	E	emphatic
iLoc	inner locative	hC	human classifier
pt	past tense	Acc	accusative
Aux	auxiliary	ptc	participle
prt	present tense	ord	ordinal
impv	imperative	nom	nominaliser
IA	inflectional augment	2	second person
mid	middle voice	Loc	locative

Free Translation.

1. One day Mankhu's mother and father had a fight. 2. His father said, "Hey, Mankhu, go to school and study." 3. His mother said, "No, he will not go! 4. Who will do the work around here? 5. Who will do the farming and gardening? 6. So there! He will not go to school!"

7. In just that manner, back and forth, they quarreled between themselves. 8. At any rate, Mankhu disregarded his mother's word and went off to school to study.

9. He studied and studied; he studied up to the sixth class.

10. After this he left school. 11. His father also said, "Leave school, son. 12. It is time for you to begin the work you were cut out to do." 13. So he left school.

14. He left school and began to farm. 15. He studied into the fifth or sixth class. 16. Now he has begun to travel around--he is now traveling around.

D. Phonological Groupings.

Major phonological breaks occur between Sentences 6 and 7, between 8 and 9, and between 13 and 14. Phonologically we need to specify how these breaks differ in kind from phonological breaks which mark the end of other sentences. At the end of such 'other' (non-final) sentences a pause may occur, but the pitch right after the pause may take up where it left off with no appreciable change in height. During such sentences there may be a slight downdrift, and the overall effect is such that these non-final sentences, taken as a group, drift downward with respect to pitch. At the end of such sentence-groups (1 through 6, 7 and 8, 9 through 13, and 14 through 16), however, there is a further general drop in pitch accompanied by fading intensity. Then across the phonological boundary to the next sentence-group a sharp upstep in pitch occurs. This upstep in pitch is notably lacking at the onset of other (non-final) sentences.

In the sample text we have represented the major phonological breaks with double-slash lines. We will call the phonological groups, which these breaks delimit, phonological paragraphs.

Paragraph 1	Sentences 1-2-3-4-5-6
Paragraph 2	Sentences 7-8
Paragraph 3	Sentences 9-10-11-12-13
Paragraph 4	Sentences 14-15-16

E. Semantic Groupings.

In this section we discuss what we mean by semantic linkage (1), and by indeterminancy of paragraph boundaries (2). We then discuss the notion of semantic relations across parts of the text and their importance for positing semantic groupings (3). Then, we illustrate what we mean by semantic immediate constitutents with mention also of embedding as a feature of paragraph structure (4). There follows a tabulated account of the semantic relations we posit for the text (Figure 1), two diagrams illustrating how to make use of Figure 1 in plotting the semantic structure of the text, and then a detailed discussion of inter-paragraph and intra-paragraph semantic structure with formulas illustrating the latter (5). Finally we present a tree-structure representation of the results of our preliminary semantic analysis (6). See Figure 4.

1. Linkage.[7]

The surprising element in the phonological analysis given above is that Sentence 7, at the beginning of the second phonological paragraph, is very closely linked, semantically, with what has been narrated in the first paragraph. If we allow the boundaries of semantic paragraphs to be set up on the basis of the posited phonological groupings--and such we wish to do barring overriding semantic pressures to the contrary--then we may choose to view Sentence 7 as having primary semantic linkage with what is narrated in the second paragraph, its linkage with the first paragraph being viewed as secondary. To do this involves making the judgment that Sentence 7 recapitulates the event narrated in the first paragraph for the purpose of giving a proper setting to the event narrated in the second paragraph. Viewed as a setting, then, Sentence 7 identifies the event narrated in the second paragraph as belonging to the same discourse as that narrated in the first paragraph. On this view we may conclude, therefore, that Sentence 7's primary semantic linkage is with the paragraph in which it falls phonologically. In so doing, we define 'linkage' as including the notion of logical function. That is to say 'linkage' is not here to be viewed primarily as the degree to which Sentence 7 refers to what is narrated in Sentences 1-2-3-4-5-6.

2. Indeterminacy of Boundaries of Semantic Groupings.

Alternatively, some may not wish to allow the phonological breaks to dictate, in general, what the semantic boundaries between paragraphs will be. The semantic boundary, assuming there is one, between the first and second phonological paragraphs may appear to them to be indeterminate. This view relates to an assumption of the possibility of the indeterminacy of borders between units which themselves may have determinate nucleii. That is, it is possible for a text to be analyzed as having a certain number of semantic paragraphs, even though from semantic considerations alone the borders are subject to debate.

3. Semantic Relations and Their Importance for Positing Semantic Groupings.

In attempting to show semantic groupings we have relied more or less completely on our ability to state explicitly what the semantic relations are between any two juxtaposed parts of the text. The notion 'parts of the text' is important. It is not always possible to specify just what semantic relation exists between a given pair of juxtaposed sentences. Rather, we find quite often that a given sentence relates semantically to a juxtaposed sequence of sentences taken as a whole. Thus, in the sample text Sentence 1 does not relate semantically in any specifiable way to Sentence 2. Rather, it relates to the sentence sequence 2-3-4-5-6 taken as a unit. See Figure 1.

It is at this point that the notion 'semantic groupings' is seen to be *a function of specifiable semantic relations between parts of texts*. On the one hand, our inability to specify a relation between Sentence 1 and Sentence 2 is taken to mean that the sentence-sequence 1-2 is not a semantic group that has any relevance for the semantic structure of the text. On the other hand, our ability to specify a relation between 1 and 2...-6 is taken to mean that 1...-6 is a semantic group that has relevance for the structure of the text.

4. *Semantic Immediate Constituents and Paragraph Embedding*.

We shall call Sentence 1 and Sentence-sequence 2...-6 (=2-3-4-5-6) immediate constituents of the first paragraph. It will be seen in what follows that the constituent 2...-6 itself has semantic immediate constituents embedded within it. With this embedding of paragraph within paragraph we find that the principles of semantic organization of the embedded paragraph are the same as the principles of semantic organization of the matrix paragraph within which it is embedded. That is to say, embedding of semantic paragraph within semantic paragraph has potentially the same kind of organization on the two levels. This in turn supports Longacre's view of paragraph materials where multiple embedding of paragraph types are both possible and frequent.[8]

5. *Table of Semantic Relations Holding Between Parts of the Text*.

In Figure 1 we suggest certain tentative impressions (not formally justified at this point in the analysis) concerning semantic relations between any one sentence of the text and the sentence immediately following it. In addition, we give similar preliminary judgments concerning the semantic relations between certain sentence-sequences and some other sentence or sentence-sequences. These latter choices are those which appeared to us to have some potential interest or significance—but so far as we can see, a different selection by other analysts would not prevent them from arriving at many of our same conclusions. That is, we are developing a heuristic device, not a formal decision procedure; intuitive judgments (etic guesses in heuristic procedures) at this stage cannot be avoided.

In the Figure the first column lists a sentence by number which comprises a potential constituent of a semantic relation. The second column suggests a second such potential constituent. The third column suggests a possible semantic relation between the two constituents when such a relation appears reasonable. When, however, the elements from the two columns do not seem to us to comprise a relation that is specifiable in terms of conceptual frameworks we are familiar with, we affirm that there is no relation between them, insofar as our first guess is concerned— as with all cross-cultural research such guesses are open to error.

In the latter instance, where the relation is empty, we continue to add further sentences to the second column (or to the first column) until some specifiable semantic relation appears. It will not follow that when some such specifiable relation does finally appear that we at that point proceed to group the constituents that are linked by this relation into a unit of semantic structure (say, a paragraph). For example, the sentence-sequence 2-3 bears a specifiable relation to Sentence 1; but in terms of the semantics of the text as a whole the relation posited as existing between them is a truncated one. It is only after Sentences 4, 5, and 6 have been added to 2-3 that we have a semantic relation with Sentence 1 that meets the contextual requirements of the text. We shall call these semantically truncated relations intermediate relations and mark them in Figure 1 with an asterisk * in the third column. Relations which we have labelled as 'empty' we have indicated by writing 'none' in the third column.

The presence of these empty and intermediate relations puts some constraint on the arbitrariness of the possible selection of sentence-sequences which we investigate.

Given A	Given B	Semantic relation (A to B)
1	2	none
1	2-3	*identity vs. equivalence
1	2-3-4	*identity vs. equivalence
1	2-3-4-5	*identity vs. equivalence
1	2-3-4-5-6	identity vs. equivalence
2	3	*initiating speech vs. response speech
2	3-4	*initiating speech vs. response speech
2	3-4-5	*initiating speech vs. response speech
2	3-4-5-6	initiating speech vs. response speech
3	4	*statement vs. reason
3	4-5	*statement vs. reason
3	4-5-6	topic vs. development
4	5	identity vs. equivalence
4	5-6	none
4-5	6	reason vs. consequence
5	6	*reason vs. consequence
6	7	none
2-3-4-5-6	7	*event vs. summary
1-2-3-4-5-6	7	*event vs. recapitulation
1-2-3-4-5-6	7-8	setting vs. event
1-2-3-4-5-6-7	8	setting vs. event
7	8	setting vs. event
8	9	*event vs. event transition
7-8	9	*event vs. event transition
1-2-3-4-5-6-7-8	9	*event vs. event transition
9	10	*foreshadowing vs. event
9	10-11	*foreshadowing vs. event
9	10-11-12	*foreshadowing vs. event
9	10-11-12-13	foreshadowing vs. event

10	11	*initiating action vs. response action (speech)
10	11-12	*initiating action vs. response action (speech)
10	11-12-13	initiating action vs. outcome
10-11	12	none
11	12	imperative vs. reason
12	13	*initiating action (speech) vs. consequence
11-12	13	initiating action (speech) vs. consequence
7-8	9...-13	*event vs. event
1...-8	9...-13	*event vs. event
7-8-9	10...-13	*event vs. event
13	14	*event vs. recapitulation
9...-13	14	*event vs. recapitulation
14	15	none
14	15-16	setting vs. event
15	16	setting vs. event
9...-13	14-15	none
9...-13	14...-16	setting vs. event
10...-13	14...-16	*setting vs. event
1...-13	14...-16	*event sequence vs. corollary event
1...-8	9...-16	setting vs. event

Figure 1. Table of Semantic Relations.

Two Dimensional Array. The relations posited in the Figure between Sentence-sequence 1...-6 and Sentence-sequence 7-8 and between sequences 9...-13 and 14...-16 can be viewed as giving the following structure, charted here in a two dimensional array.[9]

	EVENT-1	EVENT-2
SETTING OR PRE-EVENT	Parents' Quarrel (1...-6)	Mankhu Leaves School (9...-13)
POST-EVENT	Mankhu Goes to School (7-8)	Mankhu Travels Widely (14...-16)

Figure 2. Four-Cell Display.

Each column represents an event—and that event is broken down into a sequence of two sub-events, chronologically. The rows are not chronologically arranged but refer respectively to an introductory phase (or setting) of the event and to a resultant relation of that pre-event to the post-event. The first event begins with a quarrel between the parents, and this forms the setting for the end of the event, i.e. Mankhu's schooling. The second event is set up by the boy's leaving school and results in his traveling widely.

Each of the four cells, resulting from the intersection of the two event sequences with their respective pre and post components, can be seen as a semantic paragraph. Thus, sentence-sequences 1...-6, 7-8, 9...-13 and 14...-16 are semantic paragraphs paralleling the phonological paragraphs discussed in Section D.

Two-Cell Diagram. The relation posited in Figure 1 between sentence-sequences 1...-8 and 9...-16 gives us a different diagram—a two-cell diagram which reflects the fact that two semantic components are involved instead of four. Figure 3, then, shows the semantics of the story at a higher level of discourse structure than Figure 2.

	SETTING	EVENT
NARRATIVE DISCOURSE	Mankhu Goes to School (1...-8)	Mankhu Leaves School and Travels Widely (9...-16)

Figure 3. Two-Cell Display.

Combining the Diagrams. Combining the structures posited in the two Figures we arrive at the following formula representing high-level semantic groupings: ((1 2 3 4 5 6) (7 8)) ((9 10 11 12 13) (14 15 16)). That is, at the highest level, there are two constituents: the setting comprised of sentence-sequence 1...-8 and the event comprised of sentence-sequence 9...-16. Embedded in the setting are two semantic paragraphs: a setting comprised of 1...-6 and an event comprised of 7-8. Similarly, embedded in the event are two paragraphs: a setting comprised of 9...-13 and an event comprised of 14...-16.

Setting vs. Event. The relation posited between sentence-sequences 7-8 and 9...-13, between 1...-8 and 9...-13, between 7...-9 and 10...-13, and between 1...-13 and 14...-16, is that of EVENT vs. EVENT (in the case of 1...-13 and 14...-16, EVENT SEQUENCE vs. COROLLARY EVENT). We have labelled the relation between these various sentence-groups as EVENT vs. EVENT because the focus of the intended narration concerning "what happened" is more or less equally present in each event sequence. With SETTING vs. EVENT, on the contrary, the focus of the intended narration is not on one event followed by another of equal interest, as beads on the same event chain. Rather, with SETTING vs. EVENT (as in 1...-6 vs. 7-8), the narrator's intent is basically to record one focal event (7-8), while other materials (1...-6) are added as background for understanding the time, place or attendant circumstances of that event. This is to say, settings are semantically peripheral. Events are semantically nuclear.

Other Instances of Setting vs. Event. From Figure 1 other instances of the SETTING vs. EVENT relation are observed, viz., between 7 and 8, between 14 and 15-16, and between 15 and 16. These instances occur at a lower level of narrative structure than those discussed in E.5 under the paragraph headings Two Dimensional Array and Two-Cell Diagram. Sentences 7, 14, and 15 are semantic immediate constituents respectively of paragraphs 7-8, 14...-16, and 15-16 (the latter being embedded within 14...-16). Settings, therefore, occur within as well as across boundaries of matrix paragraphs in this particular text.

The question arises: Is Sentence 9, which we characterize semantically as foreshadowing the event narrated in 10...-13, parallel to sentences characterized as settings, viz., 7, 14, and 15? Our tentative answer is that the foreshadowing itself appears to be a kind of setting and that we find it difficult to draw a sharp line between foreshadowing as setting and recapitulation as setting. Perhaps they are semantic variants of some underlying semantic unity. That is, the setting part of a new paragraph may be semantically either a summary of the preceding paragraph or a preview of the event recorded in the paragraph which it begins. Sometimes the two seem to be combined: Compare, for example, the first part of 9 ('He studied and studied...'), which relates backward to his going to school, with the second part ('...into the sixth class he studied.'), which by implication refers to the time when he left school (after having reached the sixth grade). We therefore choose to treat the foreshadowing relation as a variant of what is basically a setting for the event narrated in 10...-13.

With this discussion in mind we take another look at the relation we posited between sentence-sequences 1...-8 and 9...-16 to see if our initial semantic guess was correct. Initially, we labelled the relation between them as SETTING vs. EVENT. But unlike other setting constituents, 1...-8 does not recapitulate a preceding event or event-sequence. That is, the narrator does not give us any information antecedent to 1...-8 which 1...-8 then recapitulates as a setting for the ensuing event. Moreover, 1...-8 does not seem to foreshadow or preview what follows in 9...-16. In other words, the highest-level setting in the text—the setting for the focal event of this particular narrative taken as a whole—does not have the same properties as paragraph level settings. We conclude, tentatively, that recapitulation and foreshadowing are features characterizing inter-paragraph linkage and that such features need not characterize inter-discourse linkage in Dhangar. To put it another way, a Dhangar narrative discourse is identifiable as such without the kind of backward and forward references that narrative paragraphs frequently exhibit in order to identify them as paragraphs within a discourse.

Formulas for Intra-Paragraph Groupings. Embedded in the four major semantic groupings we posited in E.5 under the paragraph heading Two Dimensional Array are various sub groupings the boundaries of which we delimit via the semantic relations posited in Figure 1, as follows:

Formula for the first major semantic group:

(1 (2 (3 ((4-5) 6))))

That is, 4-5 is embedded semantically in 4...-6, then 4...-6 is embedded in 3...-6, then 3...-6 in 2...-6, and finally 2...-6 in 1...-6. But a problem of interpretation arises. In Figure 1 it is seen that 3 can be related to 4...-6. Query: is 6 to be related as an IC (Immediate constituent) with 4-5 (whereupon 4...-6 is related to 3), or is 4-5 first to be related to 3 and then 3...-5 to be related as an IC with 6? Our answer: if 6 were not present in the text, the relation of 3 to 4-5 would be that of immediate constituents of an embedded paragraph. But, in fact, 6 does occur, and a very close semantic link between it and 4-5 is clearly shown on two counts—the semantic REASON vs. CONSEQUENCE link, and a very tight formal link by particle sequence glossed as 'therefore' (see mala too in the Dhangar). For these reasons we consider 3 to be linked in an IC relation with 4...-6 rather than 6 linked in an IC relation to 3...-5.

Similar kinds of arguments affect judgments throughout. These kinds of considerations lead to our emic reworking of the preliminary possibilities given in Figure 1.

In this first group then, a quarrel is announced (1) and the quarrel is described (2...-6) in which the father speaks (2) and then the mother speaks (3...-6) with her opening statement (3) followed by the development of her argument (4...-6): her reasoning (4-5) and its logical consequence (6).

Formula for the second major semantic group:

(7-8)

That is, 7 pairs off semantically with 8 at the same level of structure. There is no embedding. Sentence 7 recapitulates the event narrated in 1...-6 in order to give the proper setting for the event narrated in Sentence 8.

Formula for the third major semantic group:

(9 (10 ((11-12) 13)))

That is, 11-12 is embedded in 11...-13, then 11...-13 is embedded in 10...-13. Finally, 10...-13 is embedded in 9...-13. In 9 we are given continuity with the preceding paragraph and a preview of what is to come in 10...-13. In 10 Mankhu initiates an action the outcome of which (11...-13) is seen in his finally leaving school (13) after commanded to do so by his father (11-12).[10]

Formula for the fourth major semantic group:

(14 ((15) 16))

That is, 15 is embedded in 15-16 and 15-16 is embedded in 14...-16. Sentence 14 recapitulates 9...-13 to give proper setting to the event narrated in 15-16.[11] Sentence 15 then recapitulates 1...-8 in general and 9 in particular (the latter having an explicit backward reference to 7-8) in order to give the setting for 16.

Tree Representing Semantic Structure of the Sample Text. The following tree diagram represents our emic re-working of the preliminary semantics posited in Figure 1—it is also representative of our emic reworking of the results of sentence reversal in Section F, though the labels for the nodes are semantic labels, not grammatical.

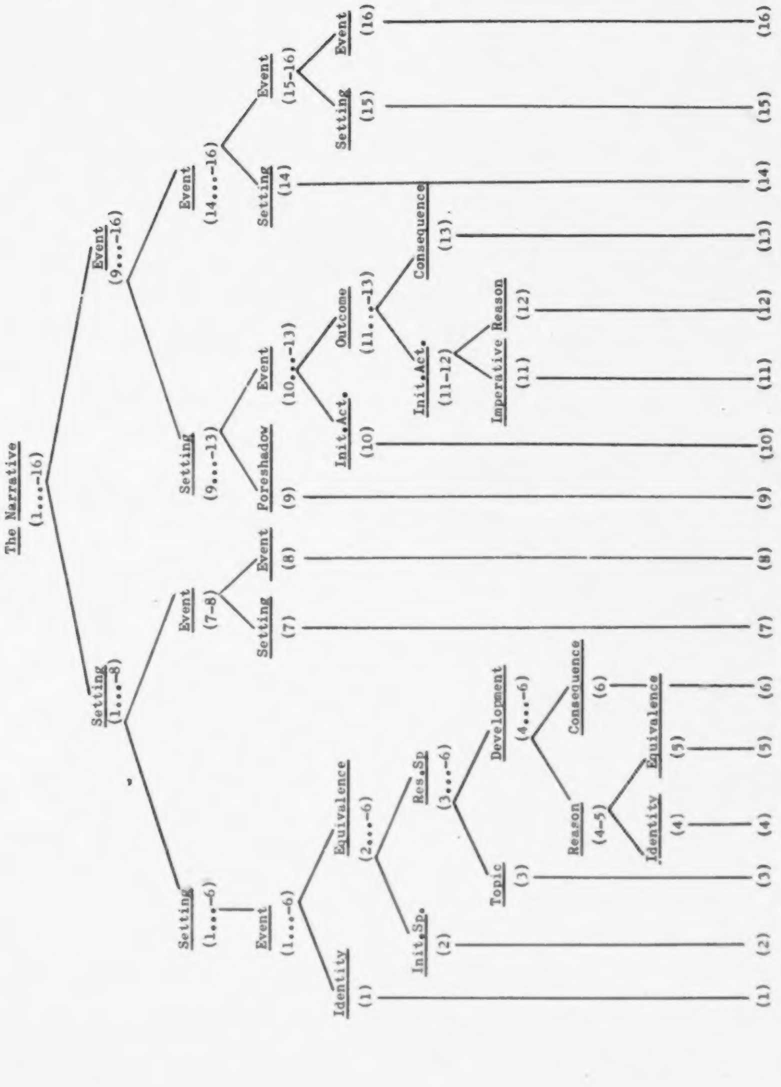

Figure 4. Tree Structure of Sample Text.

F. Grammatical Groupings.

In this section we discuss, first of all, the general usefulness of sentence-reversal as a tool for discourse analysis (F.1), after which we exhibit via Figure 5 the specific reversals which our language assistants allowed (F.2). We then proceed to discuss the relation of our sentence-reversal material to the semantic material of Section E.5 attempting to show how certain reversals were blocked because of cooccuring semantic constraints. Here also we present formulas for intraparagraph sub groupings on the basis of our table of reversals (F.3).

1. Sentence Reversal as a Tool for Discourse Analysis.

We view the usefulness of sentence reversal as a tool for grammatical analysis of high level structures as directly related to the observable and testable fact that, given a coherent text or story, not all of its sentences or sentence-sequences are equally reversible. We assume, that is, that differences in reversibility among parts of texts correlate with differences in grammatical structure. (By grammatical structure we mean combined grammatical and semantic structure. This is in keeping with a basic assumption of Tagmemic theory to the effect that grammatical structure is a composite of form and meaning.)

We illustrate these differences in reversibility and in grammatical structure from our sample text: In the first major grouping, 1...-6, we find it very difficult to readjust the grammar of Sentence 2 (father's speech) and Sentence 3 (beginning of mother's response) in any fashion which allows the mother's speech to begin (3), the father's then to be given (2), and the mother's finally to be given in its remaining parts (4...-6). There is, then, a resistance to the splitting or interruption of this kind of chronological-logical sequence (3...-6) via sentence reversal because of the very close-knit grammatical and semantic unity or coherence among its parts. But, we encounter no apparent resistance when we attempt to interrupt the original sentence-sequence 5-6 by reversing Sentence 4 with Sentence 5 (getting 5-4-6). This is so because the semantic unity or coherence existing between 5 and 6 is not upset when 4 is allowed to interrupt it. Sentences 4 and 5 both narrate the mother's reason (in an IDENTITY-EQUIVALENCE relation) for concluding in 6 that Mankhu should not go to school. That is to say, 4 and 5 are more united to each other than either of them is to 6. This means that there is no close-knit unity or coherence between 5 and 6 which, when interrupted by 4, is violated. To the contrary, the close-knit unity lies between 4 and 5, and is so tight that 6 is not allowed to interrupt it.

We conclude from this illustration that sentence reversal proved useful in showing that the grammatical structure of 3...-6 in relation to 2 is different from that of 5-6 in relation to 4. But sentence reversal did more than show that their structures were different; it implied what their structures would actually look like if we tried to *map them on to a tree diagram* (*Figure 4*), *or give formulas for them* similar to those we gave for the semantic materials in Section E. Sentence reversal as applied to the first six sentences of the text, for example, implied that Sentence 2 and Sentence-sequence 3...-6 are ICs at the same level within the larger structure 1...-6. That is, as Figure 5 shows, 1 reverses with 2...-6 taken as a whole, but not with 2. (If the latter reversal were possible then we would conclude that 1 and 2 were ICs at the same level of embedding.) Proceeding just this far with the reversals we are able to give a formula for the structure of 1...-6 as (1 ((2) (3...-6))): Sentence 2 pairs off at the same level of structure as 3...-6, and taken together they embed within the major paragraph 1...-6. See Section F.3 for formulas of major paragraphs.

We do not wish to imply from the preceding discussion that sentence reversal may be considered as a mechanical discovery procedure which guarantees automatically correct results. The contrast implied is not between reversals which are absolutely acceptable versus reversals which are absolutely rejected. Rather the contrast seems to be between *easy reversibility* and *difficult reversibility*, and we will have to grant at the present stage of our research that the terms "easy" and "difficult" are left undefined.

Yet the fact that the scale of reversibility has indeterminate boundaries by no means changes the fact that as a heuristic it can most certainly lead to a preliminary hypothesis--a hypothesis which must be checked against other formal criteria (which are not under consideration here) in order to show that the internal consistency of the posited system is well represented by it.

Our preliminary hypothesis--to repeat by way of summary--is that sentence reversal as a heuristic procedure does give some experimental support to the assumption that *different degrees of resistance to the interruption of two sentences or sentence-sequences is likely to suggest that there are different degrees of coherence or unity between their parts*; and further, that *these different degrees of resistance to interruption*, *when tabulated for a whole text*, *are convertible into preliminary structural descriptions of that text's discourse and paragraph grammar*. But in accomplishing the latter we make parallel use of tabulated semantic information (Section E.5).

2. *Table of Reversals*. In Figure 5, the first column lists a sentence or sentence-sequence by number that comprises a potential constituent of a paired-sentence reversal. The second column lists a second such potential constituent. The third column lists the resulting combinations (orderings) of our attempts to reverse constituents from the first and second columns. If no reversal is permitted we list only the unreversed (original) combination. If a reversal is permitted which is clearly *intermediate* (i.e., it is eventually blocked when further sentences are added to the second column) we mark it with an asterisk *. Not all possible reversals for the text have been attempted. Our choices

were those which appeared to us to have some potential interest or significance.

Given A	Given B	Result of reversing A with B
1	2	1-2 (i.e., none allowed)
1-2	3	1-2-3/*2-3-1
1-2-3/*2-3-1	4	1-2-3-4/2-3-4-1/*1-2-4-3/*2-4-3-1
1-2-3-4/2-3-4-1/etc.	5	1-2-3-4-5/*2-3-4-5-1/*1-2-4-5-3/*2-4-5-3-1/1-2-3-5-4/*2-3-5-4-1/*1-2-5-4-3/*2-5-4-3-1
('etc.' here means 'in addition to all forms in the third column of the immediately preceding row.')		
1-2-3-4-5/etc.	6	1-2-3-4-5-6/2-3-4-5-6-1/1-2-3-5-4-6/2-3-5-4-6-1
1-2-3-4-5-6/etc.	7	1-2-3-4-5-6-7/1-2-3-5-4-6-7
1-2-3-4-5-6-7/etc.	8	1-2-3-4-5-6-7-8/1-2-3-5-4-6-7-8/2-3-4-5-6-1-7-8/2-3-5-4-6-1-7-8/8-1-2-3-4-5-6-7-8/8-1-2-3-5-4-6-7-8
1-2-3-4-5-6-7-8/etc.	9	1-2-3-4-5-6-7-8-9/etc. ('etc.' here means 'in addition to all combinations in the third column of the immediately preceding row.')
1-2-3-4-5-6-7-8-9/etc.	10	1-2-3-4-5-6-7-8-9-10/etc.
1-2-3-4-5-6-7-8-9-10/etc.	11	1-2-3-4-5-6-7-8-9-10-11/etc.
1-2-3-4-5-6-7-8-9-10-11/etc.	12	1-2-3-4-5-6-7-8-9-10-11-12/etc./1-2-3-4-5-6-7-8-9-10-12-11/etc.
1-2-3-4-5-6-7-8-9-10-11-12/etc.	13	1-2-3-4-5-6-7-8-9-10-11-12-13/etc.
1-2-3-4-5-6-7-8-9-10-11-12-13/etc.	14	1-2-3-4-5-6-7-8-9-10-11-12-13-14/etc.

Given A	*Given B*	*Result of reversing A with B*
1-2-3-4-5-6-7-8-9-10-11-12-13-14/etc.	15	1-2-3-4-5-6-7-8-9-10-11-12-13-14-15/etc.
1-2-3-4-5-6-7-8-9-10-11-12-13-14-15/etc.	16	1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16/etc./1-2-3-4-5-6-7-8-15-16-9-10-11-12-13-14-15-16/etc./16-9-10-11-12-13-14-15-16-1-2-3-4-5-6-7-8-14-15-16/etc.

Figure 5. Table of Sentence Reversals.

3. *Comparison of Tabulated Reversals* (*Figure 5*) *and Semantic Relations* (*Figure 1*).

Relation of Reversibility to the Distinction Between 'Nuclear' and 'Peripheral.' From Figure 5 we observe that Sentence 1 reverses easily with contiguous sentence-sequences such as 2-3, 2-3-4, etc. Sentences 7, 9, and 14, however, do not easily reverse with contiguous sentences or sentence-sequences. Similarly, Sentence 15 does not reverse with contiguous sentences or sentence-sequences. Now looking at Figure 1 we see, on the one hand, that sentences 7, 9, 14, and 15 have been described as settings, and on the other hand, that Sentence-1 has been described as a non-setting (i.e., it relates to 2...-6 as IDENTITY to EQUIVALENCE). Settings are semantically peripheral; non-settings are semantically nuclear. We feel that our use of 'peripheral' and 'nuclear' as contrasting terms applying to elements of paragraph structure is supported by the observation here to the effect that the opening sentences of paragraphs 7-8, 9...-13, 14...-16 and 15-16 are not as easily reversible with contiguous parts of the text as the opening sentence of paragraph 1...-6 is. We conclude that *a pair of nuclear items reverses more easily than a pair of sentences one of which is peripheral and one nuclear*.

Semantic Constraints Governing Difference of Reversibility Among Intra-Paragraph Nuclear ICs. We said in Section F.1 that the usefulness of sentence reversal as a research tool was related to the fact that not all sentences or sentence-sequences are equally reversible. We wish to build on to that preliminary discussion by observing from Figure 5 that reversals are allowed between *some* nuclear semantic ICs but not *all*. We ask: Are there semantic constraints which govern this difference of reversibility among nuclear ICs? (See Section E.5 under paragraph heading *Formulas for Intra-Paragraph Groupings* for IC analysis of semantic paragraphs.) Our answer is affirmative. By comparing the two figures we see that *nuclear constituents linked semantically by solely logical relations are more easily reversed than those linked by chronological relations*.

(Here the contrast is being made between constituents having logical linkage only versus those which have chronological linkage plus or minus logical linkage.)

Hence, we find that the nuclear reversible constituents 1 and 2...-6 are related logically as IDENTITY to EQUIVALENCE with no accompanying chronological link (i.e., there is logical sequence involved, but not chronological sequence). But non-reversible nuclear constituents 10 and 11...-13 are related chronologically as INITIATING ACTION to OUTCOME (or SEQUENT ACTION). Within paragraph nucleii, then, it appears easier to reverse logically related ICs than it is to reverse chronologically related ones, so far as our sample text is concerned.

Semantic Constraints Governing Difference of Reversibility Among Inter-Paragraph ICs. If the preceeding holds true in general for intraparagraph nuclear ICs, we wish to know if it holds true, also, for interparagraph ICs at the discourse-level. At first glance, it appears that the logical versus chronological semantic constraint does not apply. For example, Sentence 8, the nuclear constituent of the second paragraph—and chronologically sequent to the event narrated in the first paragraph—reverses with 1...-6. In this instance, however, Sentence 8, accompanied by 7, reappears at the end of the reversed sequence 8-1-2-3-4-5-6 giving 8-1-2-3-4-5-6-7-8. Hence, chronological upset of this kind or degree is accompanied by major compensating grammatical adjustment, viz. the repitition of 8 (with 7) at the end of the reversed sequence. This is an important aspect of the sentence reversal technique which we shall come back to in Section G. We conclude, tentatively, that inter-paragraph chronological reversal is not terribly difficult, so far as this text is concerned, provided the reversed constituent is repeated in normal chronological sequence after the reversed sequence. Unfortunately, this particular text has no inter-paragraph links that are merely logical and, therefore, we are not able to say conclusively that logically related constituents reverse more easily than chronologically related ones. We assume that logically related constituents reverse more easily than chronological ones in terms of economy of accompanying grammatical adjustments— the adjustments accompanying logical reversals will be more economical. See Section G.

Discourse-Level Grammatical Boundaries. One particular reversal more than others which our language assistants allowed gives us an insight into the structure of this narrative's highest-level grammar. That is the reversal which gives us the combination 16-9-10-11-12-13-14-15-16-1-2-3-4-5-6-7-8-14-15-16. We interpret the embedding, via major chronological reversal, of 9...-16 within 16-9-10-11-12-13-14-15-16 taken together with the embedding of 1...-8 within 1-2-3-4-5-6-7-8-14-15-16 as indicating that we have two major discourse-level constituents for this text: 1...-8 and 9...-16. There seems to be no way that we can split either of these sentence-sequences (1...-8 or 9...-16) via further reversal. But we can split the original sequence of the narrative by reversing these two, the one with the other. That we can make this particular high-level reversal but not others is taken here to mean that we have *a grammatical structure for the narrative paralleling that posited via our paired semantic components approach* (Figure 1) where we said that 1...-8 related semantically to 9...-16 as SETTING to EVENT. See also Figure 3.

Paragraph Boundaries. The placing of grammatical boundaries parallel to those we posited for the semantic and phonological paragraphs is supported by the sentence reversal tabulation (Figure 5). Specifically, the permitted reversal by which we get 2-3-4-5-6-1-7-8 supports the placing of the boundary of the first grammatical paragraph between Sentence 6 and Sentence 7. Sentence 7's supposed indeterminacy as to paragraph membership (See Section E.2) is reduced considerably when we consider its juxtaposition, via the reversal, to Sentence 1—particularly since we would have expected 7 to disappear, rather than to appear juxtaposed to 1, if it had belonged to the first paragraph. That is to say, Sentence 7, which has the same grammar as reversed Sentence 1 (see Section G), would be gramatically redundant if its membership was with the first paragraph. Its proposed membership in the second paragraph keeps us clear of such redundancy.

Placing the grammatical boundary for the second paragraph between 8 and 9 is supported by the permitted reversal 1-2-3-4-5-6-7-8-15-16-9-10-11-12-13-14-15-16 in which the sequence 15-16, a constituent from the fourth paragraph, comes between 8 and 9. To say that 8 and 9 belong to the same paragraph means that 15-16 must also belong to that paragraph, via the reversal—and that is difficult to sustain in view of 15-16's consistent co-occurrence with 14 (as in the end of the above reversal). In addition, we note 14-15-16's consistent co-occurrence with 9...-13, as above, and under reversal such as in the permitted combination 16-9-10-11-12-13-14-15-16-1-2-3-4-5-6-7-8-14-15-16.

For the third and fourth paragraphs the placing of the boundary between 13 and 14 is supported by the reversal cited immediately above, in which the last instance of 14 does not occur contiguous to 13 but to 8. This is not very conclusive evidence for positing a grammatical boundary between 13 and 14. If we found that we could reverse the larger sequence 9...-13 with 14...-16 giving *14-15-16-9-10-11-12-13 we would thereby have stronger evidence for placing the boundary between 13 and 14. However, this particular reversal has not yet been attempted.

We conclude that sentence reversal in general supports the division of the text into four grammatical paragraphs: 1...-6, 7-8, 9...-13, and 14...-16. This agrees with our earlier divisions of the text on the basis of the phonology and semantics. Compare with Figure 4.

Formulas for Intra-Paragraph Groupings. Embedded in the major paragraphs which we set up in Sections D and E.5 are various sub groupings the boundaries of which we attempt to delimit here via the reversals in Figure 5—in our formulas, all sentences of a paragraph which are connected by hyphen are nuclear; in cases where paired sentences are not so connected the first such sentence is peripheral, the second nuclear.

Formula for the first paragraph:

(1-(2-(3-((4-5)-6))))

Beginning at the deepest level of embedding and working up and out, we note, first, that 4-5 does not get interrupted, via reversal, by either 3 or 6. But both 3 and 6, provided one or the other is not counted as present in the text, may reverse with 4-5 taken together—we have not shown, via Figure 5, 6 reversing with 4-5 since, there, we were not concerned to show reversals involving deletion of sentences which had already been added in the second column. Hence, we place parentheses around 4-5 to indicate that taken as a whole it pairs off with another constituent to form an embedded paragraph. In our formula we have shown 4-5-6 as that embedded paragraph, and in doing so we have not relied on sentence reversal but on the close grammatical link between 4-5 and 6 via the particle sequence see mala too, the Dhangar equivalent of 'therefore.' By way of this close link with 4-5, Sentence 6 and 4-5 form together a constituent that as a unit may be linked semantically to Sentence 3; hence, we have drawn parentheses around 3-4-5-6 to indicate that it forms the next ascending level of embedding. At this point then our formula is derived not only from the results of sentence reversal but from the results of our semantic analysis in Section E.

Our parentheses around 3-4-5-6 reflects the fact that 2 does not interrupt that sequence at any point (i.e., does not reverse with any part of 3-4-5-6). It follows that 2 is grammatically related to 3-4-5-6 as a whole and not to any part of it in isolation from the rest—this is confirmed by the overt grammar that connects 3-4-5-6 with 2, viz., the direct quote marker at the beginning of 3 which embraces 3-4-5-6 as a unit. Finally, 2-3-4-5-6, because it cannot be interrupted by Sentence 1, is contained within parentheses. Sentence 1 and sentence-sequence 2...-6 pair off at the same level to form the immediate constituents of the first matrix paragraph of the text.

Formula for the second paragraph:

(7 8)

There is no embedding within this paragraph. Sentence 7 does not reverse with Sentence 8. That 7 is, however, peripheral to 8 is seen via the permitted reversal 8-1-2-3-4-5-6-7-8 in which 8 may occur initially in the text without being accompanied by 7. Hence, we have not used a hyphen in the formula for this paragraph. This contrasts with our use of the hyphen in the first paragraph to indicate that Sentence 1, because it does reverse with 2...-6 and because it does not appear to be deletable, is nuclear, as well as 2...-6—we note that peripheral elements such as paragraph settings (Sentences 7, 14, and 15) are deletable upon major chronological reversal. See Figure 5.

Formula for the third paragraph:

(9 (10-((11-12)-13)))

This formula is similar to that for the first paragraph except that the latter contained one more constituent and, thus, one more level of embedding than this paragraph. It differs also in that 9 is peripheral to 10...-13, unlike the first paragraph in which 1 is nuclear as well as 2...-6. This difference is not demonstrated by any reversal we have attempted thus far; so at this point we are relying on the semantics of Section E.5.

Sentence-sequence 11-12 is not interrupted by either 10 or 13. It forms a unit constituent that pairs off with some other constituent to form an embedded paragraph. In this case 11-12 pairs off with sentence 13, the grammatical relation between them being overtly marked by the Dhangar particle *see* translatable by English 'so.' Then, 11-12-13 pairs off with 10 with the accompanying grammatical link marked by Dhangar *huN* translatable by English 'also.' We rely pretty much on the semantics for this particular pairing of ICs. Finally, Sentence 9 pairs off with 10-11-12-13 linked as they are by Dhangar *tekar-baad-nu* translatable by English 'after this.' The 'after this' begins a sequence inclusive of 10 through 13.

Formula for the fourth paragraph:

(14 (15 16))

From Figure 5 we note that in the resulting combinations of the major chronological reversals, 15-16 occurs once without being accompanied by 14 (15-16-9-10-11-12-13-14-15-16), and that 16 occurs once without being accompanied by 15 (16-9-10-11-12-13-14-15-16-1-2-3-4-5-6-7-8-14-15-16). This kind of behavior we have interpreted above as indicating a distinction between peripheral and nuclear paragraph constituents. In the first instance, 15 is a peripheral constituent (semantically, a setting) that pairs off with 16, the nucleus, to form an embedded constituent that in turn pairs off with 14 to form the primary ICs of the matrix paragraph. In the second instance, 14 is a peripheral constituent (semantically, a setting) that pairs off with 15-16, the nucleus of the matrix paragraph. We have indicated the peripheral status of these constituents in the formula by not hyphenating between 14 and 15-16 nor between 15 and 16.

In this section we have tried to show that our tool of sentence reversal yields results that are convertible into preliminary structural descriptions of inter-paragraph and intra-paragraph grammar. That we have not succeeded in doing so without cross-reference to the results of our approach to paired semantic components (Section E) underscores one of our basic assumptions which we repeat here: Grammatical structure is a composite of form and meaning. We have not been able to rely solely on one approach as over against the other in setting up our formulas. We have had to combine both kinds of approach and both kinds of results.

The general principle underlying our use of sentence reversal results as a means of formulating preliminary structural descriptions is that different degrees of resistance to the interruption of a given sentence-sequence via reversal enable the analyst to delimit the grammatical boundaries between immediate constituents of the text at a particular level of embedding and, that given sufficient information of the types displayed in Figures 1 and 5, the analyst is able to do this systematically for the text as a whole and for all levels of embedding. We have applied the reversal technique to only one text for one language. We are confident that this technique will be equally useful in applications to other Dhangar texts and to texts of languages other than Dhangar.

G. Hypothesis to Account for Semantic Upset in Relation to the Grammatical Adjustments Forced by our Tool of Sentence Reversal.

We wish to propose a hypothesis which will explain the phenomenon of chronological upset as we encountered it in Section F.3, under the paragraph heading *Semantic Constraints Governing Difference of Reversibility* etc., and which will delimit for us the boundaries of its occurrence in terms of a scale of greater versus lesser upset. (This relates to the preliminary discussion in Section B.3 regarding change of focus in attention and re-focussed paraphrases of a discourse. Here, we are attempting to grapple with the question: What are the limits of focus change?) We wish such a hypothesis to be able to cover instances of logical as well as chronological upset—we are not, however, trying to contrast logical versus chronological upset in an absolute sense; in many instances they overlap. In general, therefore, we wish our hypothesis to handle all varieties of semantic upset. At this stage of our research, however, our hypothesis and the testing of its worth will be tentative, preliminary, and sketchy.

1. *Hypothesis*. Our hypothesis will be that *the greater the semantic upset the more uneconomical or complex will be the accompanying adjusted grammar*. Corollary judgments spawned by this hypothesis are 1. that the greater the semantic upset (as this has been evaluated by the narrator's audience, and then communicated to him) the more costly will be the narrator's attempt to remedy the upset in terms of narrative energy. And 2. that the greater the semantic upset the greater will be the hearer's expenditure of perceptual or cognitive energy (the energy expended in order to understand what the speaker is narrating).[12]

2. Assumption Regarding Complex and Simple Grammar Underlying Hypothesis.

One assumption underlying our hypothesis is that we may formally distinguish between complex and simple grammar, and beyond this that we may distinguish between various degrees of grammatical complexity (and, consequently, between various degrees of grammatical simplicity).

At present, we can only begin to support this assumption. We have an example of simple grammar in the first paragraph of our sample text:

(A) 1. One day Mankhu's mother and father had a fight. 2. His father said,. . . . 3. His mother said, . . . , etc.

In this sentence-sequence the logical transition between Sentence 1 and what follows is carried by simple juxtaposition, which is to say that the transition need not be marked by means of overt grammatical particles. But when we reverse sentence 1 with what follows the grammar is less simple:

(B) 2. One day Mankhu's father said, ... 3. His mother said, . . . ,etc. 1. In just that manner, back and forth, they quarreled between themselves.

The logical transition between sentence-sequence 2-3, etc. and Sentence 1 can no longer be carried by simple juxtaposition; it must be carried by overt grammatical markers 'In just that manner' and 'back and forth.' Hence, sentence reversal gives us a device for distinguishing various degrees of grammatical simplicity and complexity. We shall say, then, that _the greater the need for grammatically marked transition between parts of texts, the greater the grammatical complexity of the text as a whole_.

3. _Semantic Upsets and Consequent Grammatical Adjustments_. Our hypothesis regarding semantic upset was that the greater the upset the greater will be the complexity of the grammar which seeks to remedy that upset. (Perhaps we should speak of 'would-be' semantic upset instead of 'actual' upset since the narrator usually does not allow the upset to actually or finally occur. Hence, we are interested in the grammar which he uses in order to block such upsets.) And this we wish to discuss briefly with illustrations from our sample text.

Minimal Semantic Upset. On the lower extreme of the scale of upset no grammatical adjustments will be required in order to compensate for semantic skewing. It may even be difficult to say in such instances that one form of the text is more upset than another. For example, Sentence 4 and Sentence 5 of the original

(A) 4. Who will do the work around here? 5. Who will do the farming and gardening?

are simply juxtaposed with no overt grammatical particle marking the transition between them. When we reverse these sentences, we get

(B) 5. Who will do the farming and gardening? 4. Who will do the work around here?

again with simple juxtaposition, i. e., no overt marking of the transition. As far as the English translation is concerned we may feel that the reversed version (B) is not semantically as acceptable as version (A). At any rate, no grammatical adjustment is required by our main language assistant for the Dhangar reversal. We may judge, however, that he would normally say (A) in preference to (B), and from this consideration conclude that (A) is less semantically upset than (B). In so judging we would then need to search for contexts in which sentences like 4 do not reverse with sentences like 5 apart from *some* grammatical adjustment.

Maximum Semantic Upset. On the upper extreme of the scale certain kinds of semantic upset may be judged to have taken place which no amount of grammatical adjustment can remedy—short of recasting the whole narration, or that part of it affected by the upset. In such instances, the requisite grammatical adjustment amounts to making such amended narrations. We illustrate from our text:

(A) 2. One day Mankhu's father said, "Hey, Mankhu, go to school and study." 3. His mother said, "No, he will not go. . .4-5-6." 1. In just that manner, back and forth, they quarreled between themselves. 7. (optionally occurring) In that manner they quarreled. 8. At any rate, Mankhu disregarded his mother's word and went off to school to study.

*(B) 8. One day, Mankhu disregarded his mother's word and went off to school to study. 2. His father said, on that particular day, "Hey, Mankhu, go to school and study." 3. His mother said, "No, he will not go. . .4-5-6." 1. In just that manner, back and forth, they quarreled between themselves. 7. (optionally occurring) In that manner they quarreled. 8. And Mankhu, having disregarded his mother's word, went off to school to study.

Version (A) is a result of what we call primary reversal, that is reversal between intra-paragraph constituents. We have discussed this particular reversal above. Version (B) is a result of secondary reversal, that is reversal between inter-paragraph constituents.[13] We have marked (B) with an asterisk to indicate that the Dhangar equivalent of (B) is not acceptable to our language helper. He tells us that the secondary reversal in (B) is all right, but that the previously acceptable primary reversal between 1 and 2...-6 is not acceptable in (B). Version (C), in which the secondary reversal of (B) is retained, but the primary reversal rejected, is the acceptable alternative to (A):

(C) 8. One day, Mankhu disregarded his mother's word and went off to school to study. 1. It happened in this way: That day Mankhu's mother and father had an argument. 2. His father said, "Hey, Mankhu, go to school and study." 3. His mother siad, "No, he will not go. . . 4-5-6." 7. In just that manner, back and forth, they quarreled between themselves. 8. And, having disregarded his mother's word, he went off to school to study.

Version (B), then, is an instance of maximum or near-maximum semantic upset. If (B) was ever actually to occur, then presumably much of its content would be recast in a form similar to (C), or to (A). This assumes that our language assistant's reluctance to accept version (B) was due to the fact that he could think of no grammatical adjustment which would remedy the semantic upset short of such recasting. Of course, it may turn out that he will eventually find a way to keep (B) by making some less costly grammatical adjustments; in that case we would have to revise our evaluation of this particular instance of semantic upset.

Intermediate Semantic Upset. In between these two extremes on the scale of semantic upset we get some upsets that are on the lower half which are remedied by means of relatively economical or simple adjustments—such as the upset caused by reversing 1 with 2...-6 (which we have discussed above); and we get some upsets that are on the upper half of the scale that are remedied by means of relatively uneconomical or complex adjustments. We illustrate these upper-half upsets via the major chronological reversals, viz., 8-1-2-3-4-5-6-7-8, 1-2-3-4-5-6-7-8-15-16-9-10-11-12-13-14-15-16 and 16-9-10-11-12-13-14-15-16-1-2-3-4-5-6-7-8-14-15-16. The upset caused by reversing the original 'this-happened,-then-that-happened' chronology is so great that the addition of special transition grammatical markers between reversed constituents is not sufficient to remedy the upset or preserve the original intended meaning; the reversed constituents such as 8, 15-16 and 16 must be *repeated in their original chronology-preserving positions*—relatively uneconomical as grammatical adjustments go. Moreover, of these three chronological reversals, the one involving the placing of 16 at the beginning of the text is relatively more costly than the other two, since it seems to require the repetition of 16 twice, whereas 8 and 15-16 are each repeated only once.

4. *Preliminary Assessment of the Hypothesis*.

In this discussion we have attempted to test our hypothesis in a preliminary way. We feel that the hypothesis works well so far as our sample text is concerned. It may need refinement as we attempt to apply it to other Dhangar texts. We have made no attempt to assign specific measurements to various types of semantic upset or to various types of accompanying adjusted grammar along the scale of upset which we posited. Hence, we do not wish to be taken too literally when we discussed the 'lower half' versus the 'upper half' of the scale. Nevertheless, we feel confident that our assignments of the various types along the scale *relative to each other* will be upheld by further investigation.

H. Summary.

The observation that not all paired sentences or sentence-sequences of a narrative text are equally reversible taken in conjunction with the observation that not all paired sentences or sentence-sequences of a narrative text sustain semantic relations among themselves that are equally specifiable leads us to say that making systematic tabulations of acceptable versus unacceptable reversals and of semantically specifiable versus semantically non-specifiable relations is very useful for the purpose of describing the structure of one Dhangar narrative discourse. Further, sentence reversal, by virtue of the semantic constraint we put upon it—requiring that the logical and chronological relations of the original narration be preserved throughout—has the added usefulness that it helps us distinguish formally between various degrees of semantic upset or skewing. This it does by forcing compensating grammatical adjustments which vary in complexity according to the degree of upset which occurred as a result of the reversal.

This latter usefulness, if found to be language-universal, may eventually be exploited to the extent that, for any given language, we will be able to generate acceptable narrative paragraphs and discourses which reflect minimal semantic skewing and minimal grammatical complexity so far as the paragraph and discourse structures are concerned. Alternatively, we will be able to generate acceptable paragraphs and discourses which reflect maximum semantic upset and grammatical complexity.

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Footnotes.

[1] Dhangar is a Dravidian language and a dialect of Kudux (India). It is spoken by about 10,000 persons in the Terai districts of Nepal. See National Census: Results (part-2), Table-8, p. 20 (1961).

This work on Dhangar—and that in the earlier article in the series, "Preliminary Technology to Show Emic Relations between Certain Non-Transitivity Clause Structures in Dhangar (Kudux, Nepal)," Vol. I.1.56-79, Footnotes. (cont'd)

1972—was done pursuant to an agreement of cooperation between the Summer Institute of Linguistics and Tribhuvan University, and has been carried out under the auspices of the Institute of Nepal Studies of the University. The authors wish to express their gratitude to the Institute of Nepal Studies for their part in making this research possible.

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In general, Gordon has contributed the language data, the specific analysis and conclusions. Pike has provided the theoretical stimulus and working assumptions.

[2] We numbered the sentences on the basis of our first preceptions of phonological and semantic divisions. Other investigators might have chosen to number the sentences somewhat differently.

[3] Saukhi Lal Prasad Uraon (author of the text), Banthu Uraon, Ram Prasad Uraon, and Shib Kumar Das Uraon assisted us at various stages of the research in the ways we have indicated. We are grateful for the part they had in making this research in Dhangar-Kudux possible.

[4] Bellert, p. 361.

[5] It may be equally true to say that the further removed we are from the author in time, culture, and world-view, the less likely it is that we will be able to specify, unambiguously, all semantic relations which the author intended.

[6] Many of the spelling conventions adopted for the text are convertible to the underlying phonemic equivalents without special comment. Others are as follows:

ee, etc. = long vowels
nG = velar nasal
' = glottal catch
R, D = retroflex consonants
: = consonant gemination
N = nasalization of preceding vowel

[7] For a more comprehensive discussion of semantic linkage in relation to paragraph structure in Philippine languages see Longacre (1968).

[8] Longacre (1968).

[9] In the development of this matrix diagram we profited from discussions with Dr. Francis Ekka, of the Central Institute of Indian

Languages, Mysore, India.

[10] Our translation of this passage (10...-13) given above under Section C reflects the ambiguity that in all probability is present also in the original Dhangar text. The translation might lead one to believe that 11-12 recount the reason for Mankhu's leaving school in 9. The author of the text insists, however, that first of all Mankhu left school with the intention of returning (9), then his father, taking advantage of the opportunity, told him to leave school for good (11-12). It was at the father's request, then, that Mankhu finally left school (13).

[11] The latter half of Sentence 14 appears to do more than recapitulate 9...-13 since it contains information that is not explicitly mentioned in 9...-13. That information is, however, implicit in 9...-13 in that his leaving school was for the very purpose of doing the farm work mentioned explicitly in 14.

[12] For a brief discussion of the relation of grammatical structure to the form in which sentences are understood see Bever and Langendoen (1971). They hold that there is experimental evidence to show that "perceptual strategies are sensitive to the external patterning of major syntactic categories" (p.436) and that "listeners make primary use of an ordered set of perceptual strategies which directly map external strings onto their internal structures" (p. 435). The discussion is restricted to intra-clausal and inter-clausal grammatical relations. It would be interesting and worthwhile to see this discussion extended to include the grammar of narrative discourse.

[13] See Pike and Schoettelndreyer (1972) for a discussion of primary versus secondary reversal in relation to the analysis of a Sherpa text.